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Relating to the Farm, the Garden, and the Household.

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The Farm.

A Short-horn in Wayne County.

During several visits which we have made to Plymouth, in the course of the past five years, we have taken occasion to watch the progress of the herd of Short-horns established by Mr. Silas Sly and sons. The females with which they started their herd originally came from Rensselaer county, N. Y., and were closely allied by descent to the Cox importation of 1816, and the Bullock importation of 1822, mingled with the stock afterwards imported by General Stephen Van Rensselaer and George Vail, Esq. The cows, for a series of years, were bred to Lord Byron, a son of old Splendor, but not fairly a match in quality for them. We have taken occasion to remark that their herd was mostly distinguished for the excellence of the females; and that having such an excellent starting point, it was important to keep it up by the use of the best bulls within their reach. With this design, one or two additions have been made to the stock by calves from New Year's Day, from Sirloin, from Guelph, and also by Primus, a young bull by Sirloin, which was brought from Ohio. In 1858, Mr. H. P. Sly, after making himself familiar with the several of the best breeds in Kentucky and in Ohio, visited likewise the herds of the principal Canadian breeders, went again to Rensselaer county, New York, and selected out three deep roan heifers, of very excellent qualities; one of them, bred from Duke of Athol, 1463 of Am. Herd Book, is of a form and quality difficult to be beaten any where. With a number of heifers coming forward the present season, which had been bred from the best stock within reach, it was desirable to procure a bull of unquestionable quality and descent. With the design of examining some of the best bred stock in Canada and New York, Mr. Nathan Sly and Samuel Lyndon called upon us, on their way eastward,

about three weeks since, and we gave them a letter of introduction to F. W. Stone, of Guelph, C. W. After examining the stock, they found in the herd a young bull which came up to the standard they had set their minds upon having, and during the past week the "Fifth Duke of Cambridge" has been brought home and located with Mr. H. P. Sly, on his place, three miles from the village of Plymouth.

The "Fifth Duke of Cambridge" is a rich red roan, well marked and was two years old on the 12th of last December. For size, combined with substance and symmetry, he is first rate. He has the deepest and widest chest and brisket of any bull of his age we have ever seen. His fore legs stand very wide apart, and show a magnificent chest, with room enough in it for a heart as large as a bushel basket. Over the shoulder he is peculiarly round and full, and this fullness and roundness of form is carried clear back to his loin. The back is straight, strong, muscular, and the hind quarters are long, extend well forward upon his loin, and make him well ribbed up. His head, and all the points connected with it, are about as perfect as Short-horns are made. The tail is very fine, and indicates his breeding. The limbs are strong, with a considerable development of bone. The body is set low, is broad, deep and muscular. For spirit, vigor, and every sign of strong constitution, we have yet to see an animal his superior. Those who are acquainted with the measurements of two year olds, will have some idea of his size when we state that his girth behind the shoulder is within one inch of being seven feet, and that his weight is now close to 1700 lbs. This is bull an acquisition to the State, of which we have every reason to feel proud, and we cannot doubt that he will prove of the highest service to the herd of the Messrs. Sly, whose judgment in selecting him must be approved by all good judges of this class of stock. We do not know what was the price paid for the Fifth Duke of Cambridge, but we know some months ago his price was asked, on account of another breeder in Michigan, and the figure named was one thousand dollars.

Fifth Duke of Cambridge was sired by John O'Gaunt 2d, a bull imported by F. W. Stone, of Guelph. John O'Gaunt by Horatio was the sire of John O'Gaunt 2d, Horatio was bred by the celebrated Col. Towneley, from Buttercup, the dam of Butterfly, afterwards the dam of the celebrated Master Butterfly that won the prize at the great French Exhibition. John O'Gaunt 2d had for his dam Daura Gwynne, a cow of the Gwynne tribe, of the celebrated Booth herds, and sixth in descent from Nell Gwynn, by Layton 366 of the English Herd Book, and both a grand daughter and great grand daughter of the celebrated Favorite by Colling's Hub-back.

The dam of Fifth Duke of Cambridge, is a cow named Cherry Pie, imported in 1855 by Mr. Stone. This cow had for her dam Celia, a representative of the famous Bates stock, and one of the herd of Jonas Webb, the famous Southdown sheep breeder of Babraham, England; Celia was by the third Duke of Northumberland, a son of the first of that name. The first Duke of Northumberland, was considered the best bull ever raised by Mr. Bates, being bred from Duchess 34th, by Belvidere, the bull which when Mr. Bates first saw, he determined to have if money would buy him. The sire of Cherry Pie was Lord of the North, a bull bred by Jonas Webb from Belinda by Ranunculus, she by Sylph from Sir Walter.

The herd of Mr. Stone from which this bull has been selected is hardly enough known in this State, and yet it ought to be, for it presents very great facilities for obtaining some of the best bred stock of all kinds that there is on this side of the Atlantic. We note that it contains cows from the Booth, Gunter, Webb, Knightly, Bolden and Towneley herds of Short-horns, and when these names are mentioned in the history of the Short-horn tribe, it is picking out those which stand now at the very head of the list. One of the bulls of this herd is the 12th Duke of Oxford, a son of the sixth Duke of Oxford,

and Oxford 11th. The latter cost 2,500 dollars, when she was four years old, and both came from the herds of the Earl of Ducie, and of Mr. Tanqueray of Hendon, and were purchased at the sale of the latter in 1855. Third Grand Duke is by the crack bull of Mr. Booth's herd, from a dam sired by Grand Turk. The cows which he has imported are remarkable for their high breeding, and many of them we note are from stock that are highly praised for their milking qualities. Third Grand Duke was awarded the first prize for two-year-olds at the United States Fair at Chicago in 1859; and also at the Provincial exhibition at Toronto. Prince of the West was awarded the first prize in 1858, at the New York State Fair, and also as the best Short-horn bull in the foreign class shown at Albany in 1859. These are cited as showing the estimation in which this herd is held, when its members have been shown against the best bred animals under the eye of the best judges.

Newspaper Borrowers—Improvements at Blackberry Corners—Preparing for the Editor—Agamemnon 1st.

MR. JOHNSTONE—I was never so pestered with borrowers in my life as I have been since I began to write for your paper. Now there was Smith, I always expected it of him, for he and I had used one paper so long that it got to be second nature, and I must say it seemed rather odd at first to have mine all to myself. But I didn't have it long, for as soon as it got about in the neighborhood that I was writing for the FARMER everybody seemed to run crazy to get hold of it, and I lent the two that had my letters in till they are clear worn out. What I want now, is, for you to send me two copies when you print anything of mine, and I'll settle with you for it at the end of the year. Come to think of it, I don't know but I may as well pay you down for an extra copy for the year to be sent to Ezekel Acres, Blackberry Corners; "Limpin Zeke," is what we call him here, and the reason I want it sent to him regular for, is because he is the most unmerciful newspaper borrower there is in six miles of the Corners. I have found out that he always read mine when Smith used to borrow it; but now Smith's got one of his own and he won't either borrow nor lend, and so Zeke comes to me. I say he comes, but he don't, he sends. He just keeps his wife or girl trotting back and forth a good chance of the time, and I know they hate it as bad as I do, for they always look and act as if they were stealing when they ask for the "last number of the FARMER for Mr. Acres; he is so anxious to see it." It will save them some shoe leather, and me a good deal of trouble by paying down at once for his year's subscription—and here it is; but don't send him the number for this week, that is, if you print my remarks, but begin with the next week.

There is some improvement going on about the Corners this spring; I might say they have been going on all winter, as far as the sacking up of the farms round here is concerned.

There is Smith, now, since you talked of coming out, he has gone and boarded up his barn that has stood for six years with nothing but the roof on. He always stacked his hay in it, and let the cattle stand round outside and help themselves. Now he has put up a long shed with a fodder-rack in it; and he has set his boys to picking up the broken harrows and crippled plows, and so forth, and piling them up behind the barn out of sight. And yesterday when I was coming past Zeke Acres, place, I noticed he had got new wooden hinges onto his gate, and a nicely whittled pin to fasten it with. It's going on three years since his pigs histed that gate off its hinges, and it hasn't been fastened in a natural way from that day to this, till last week. I guess his wife and girl won't be sorry it's up again.

There's Bill Putter, too, who lives on the farm that jines in between Smith's and mine, he's been in a great state this winter about clearing out the grubs and thistles that filled up his fence corners along the road. He knows very well you'll have to pass right by them in going from my house to Smith's, and though

I told him I did not believe you would be here before warm weather, and he'd better wait till the frost was out so he could dig them up by the roots, it wasn't no use to talk; at it he went, and there he has been putting away, hacking off the bushes and twisting off the old dry thistles and mullein stalks till both his hands are blistered, and it looks as though there had been a regular tearing bush-fight in every corner. But you can see where the fence is now—you couldn't before. He is going to have new top rails put along the whole side of the field towards the road, before you come. But there's the Hon. Gen. Bampus who owns all the land across the road from me and Putter and Smith, and is the biggest gentleman farmer there is in these parts, he has been making an improvement that quite throws all ours into the shade. His meadow land where he cuts hay is away back from the road, and his barn and stack yards are down that way and pretty much hid from sight by a ridge of ground on which the house stands facing towards the road. Now he has got considerable stock of one kind and another, but none of the Short-horned Durhams, and it was very handy to have his hay all stacked near the barn. It was put there last year, the same as it always has been, but as soon as he heard you was coming out to the Corners, he set all his men to hauling it up onto the ridge to the right of his house, and there he has got in plain sight of the road, five just as beautiful stacks of hay as you would ever wish to set eyes on! It is some unhandy about feeding the stock, but he don't care so much about that as he does about these ugly northwesterers that ruffle the hay up so, and sometimes blow the top off. It's a rather airy place for hay stacks, but they make a good show up there, and no mistake. The Hon. Gen. don't take your paper now, but he will next year if you don't show too much partiality in making notes of the improvements going on here. He will know you can't help seeing what he has done, and will be disappointed if you don't take notice of it.

You must keep a sharp look out for all these improvements when you come, and if you haven't a pretty good memory you had better bring along a pencil and piece of paper to take down notes. You will see my improvements when you come; it would not be modest for me to speak of them in a letter like this. But I can't help saying a word or two about Agamemnon 1st. He has grown wonderfully tall, and is now a full two-year-old. The only thing that troubles me about his points is the length of his horns and legs. In the former he takes after his sire, and in the latter after his dam. She was the most unfenceable critter I ever had on my farm, and would go over a nine rail stake-and-rider like any deer. I hope Agamemnon 1st won't be like her in that respect, though he looks and acts mightily like it now. Not being much used to the Durham Short-horns as a breed perhaps I do not know how to judge of or appreciate them. But it is said that "blood will tell," and waiting and hoping for the best I remain,

Yours, in respect,
TIMOTHY BLADES.

Blackberry Corners, Feb. 21, 1860.
P. S.—When you come out you will see what I have been at that has kept me still so long. Smith, who takes a great interest in Agamemnon 1st, thinks I had better saw his horns off if they threaten to grow too long. If I should, I couldn't very well apply the same remedy to his legs.
T. B.

Magna Charta's Response to Idol.

We find a letter in *Wilkes' Spirit* in answer to the compliments of the season sent by Idol and others; it is conceived in a very proper spirit, and is, as we presumed, the answer which was sure to come. If the parties are anxious, they must come upon Michigan ground to distinguish themselves. The letter is as follows:

GEO. WILKES—Dear Sir: In answer to the challenges that have appeared in your *Spirit* from Kentucky and Long Island to trot Magna Charta next spring, we would simply say, that he is owned by a company who purchased him last fall for a stock horse, and he will be kept for service in this place

next spring and summer; consequently he can do no trotting until fall, and then will not make long pilgrimages to Kentucky or Long Island, our object being to exhibit him to breeders.

We understand the Kalamazoo Association propose to offer a premium of \$1,000, to be trotted for at their exhibition, next September, free for all horses under six years old (provided there is sufficient competition to warrant it.) Magna Charta will be a competitor for this premium.

If the Kentucky gentleman will bring out his Idol to compete for this premium, so the Society will be sure of competition, the premium can, we have no doubt, be secured, and left open to all who wish to compete.

Magna Charta will do no trotting before that time, when he will be happy to test his speed with any and all horses of his age.

Yours,
F. V. SMITH & Co.

Coldwater, Mich., Feb. 5.

Farm Hedges—The English Golden Willow.

I have on my premises, a large amount of interval and marshy ground, and, having laid out my land and ditches, I throw up embankments where I want my fences. As soon as the bank becomes sufficiently decomposed and rotted, I drive my posts into the bank of the ditch, and one pole on the top of the posts is enough to keep the cattle off until the hedge is large enough to protect itself. I stick my willow sprouts each side of the line of posts, one foot apart, and having two rows one foot from each other. The sprouts should be set in each other's intermediate spaces, which will bring them six inches apart.

I have twenty-four rods of willow hedge which has been set and grown two summers, and it looks beautiful both summer and winter. My cattle have run by the side of the hedge this last fall without molesting it in the least. The hedge stands, on an average about eight feet high, and when leaved out will be almost impenetrable to the eye. The coming spring will give me a large amount of slips, enough perhaps to set one thousand roots.

My mode of setting willow hedge is this.—Drive my posts first, by a line, six or eight feet apart, according to the lumber I happen to have. Saw off and level the tops; two and a-half feet is high enough; then set my willows by making holes with an iron bar.

March is the time to set, or as soon as the frost gets out of the ground. The English Willow never spreads from the roots, but grows into a bushy top in any shape you may desire to train it. I design to have an ambrotype likeness taken of my hedge.

Napoleon, Feb. 18, 1860.

E. WEEKS.

Another Cure of Scratches.

In the last FARMER is a cure for the scratches in horses which may be very good when handy. I cured one with Tanner's oil, rubbed on with the hand. I spent probably fifteen minutes rubbing on the oil; made two applications, some two or three days apart, as it was convenient. Kept the horse in a dry pasture all the time.—O. R. PATTENGILL, Canton, Feb. 20.

Milking.

O. E. Hannum of Portage county, Ohio, notes that a great loss is occasioned by a lazy way of milking. He says: "Another thing of importance is regularity in milking. Each cow should have a steady milker, be milked as fast as possible and all the milk drawn. I am satisfied that there is a loss of one third in many dairies, by the lazy, hap-hazard way in which cows are milked. I have known persons sit down in the milking yard and go through with some long yarn, and be from ten to twenty minutes milking one cow, when it should be done in less than five.

Profits of Large Sheep.

Samuel Jones of Elyria, the well known breeder of Leicester and Southdowns, thus writes to the Ohio Farmer: I keep on my farm 80 sheep; my sale of wool amounting to \$105; sold 10 fat sheep, \$90; fifteen ewes, one ram, \$310; three ewe lambs, one ram, \$105; premiums at National, State, and County Fairs, \$410. I have now on hand 80 sheep—my flock is of the pure Southdown and Leicestershire breeds, mostly Southdowns. Now, I should like to hear from the fine wool breeders, if they can beat it? If they can, I will try again.

Progress of Northern Michigan.

EDITOR OF MICHIGAN FARMER.—Sir, Having noticed under the foregoing head several articles copied from various Northern papers into your columns, I deem it a fit occasion, as an old settler of North Michigan, to offer a few homespun remarks of my own on that subject. I have resided in what is familiarly termed "North Michigan" since the spring of 1836, during which period I have marked with painful solicitude the slow development of this most fertile portion of our State. While half a dozen new States have been carved out of the wilderness country to the West of us, and filled with a teeming and industrious population during the period of my residence in North Michigan, there still remain not far distant, in unbroken wilderness form, millions of acres of the choicest lands of the whole State. Why is this so? It has been said that the owners and agents of steamboat lines and railroads had combined to misrepresent our State as an uninhabitable morass, in order to secure the profits of a lucrative passengers business to the country lying far west of us. This, to a certain extent, may have been true. Granting that it were so, those foreigners who had not been one month upon our shores were doubtless justifiable in believing these statements; but if they were so, is it not equally true that thousands of the citizens of our own State have become as deeply imbued with the same prejudice. Certain it is that thousands of our generally intelligent citizens in the more southerly portion of our State are still firm believers in the same absurdities; and the very fact that our representatives have been for years compelled to meet and combat these same prejudices in the legislative hall of our State, has contributed largely to retard the progress of our frontier settlements. But I believe the scales are fast falling from the eyes of those who build the destinies of our State, and that the Northern counties may now hail the advent of an era of improvement now beginning to be inaugurated. Down to the present time, however, the Northern counties have not grown through the especial influence of fostering legislative care. If the North has made headway against all the adverse vicissitudes that have pervaded our State during the past twenty years, it is not the especial result of state favor, but in spite of neglect. It is the steady and irresistible progress of those natural advantages which are ultimately destined to triumph over all opposing influences. The peculiar advantages of a fertile soil—an abundance of the choicest of timber for fencing, building and shipping purposes,—with the best of harbors,—with the richest deposits of minerals, salt and gypsum, and withal a sparse but indomitable population, the Northern counties are ultimately destined to become the most desirable and wealthy portion of the State.

One word in regard to the "State policy," to which several of these articles have taken especial pains to allude. I am willing to "render honor where honor is due," but must be permitted to remark that I deem it a little premature to attribute the increase of population and progress of improvement to "a system of State roads," not the first mile of which is built. This State road system is doubtless a very good one, and is no doubt ultimately destined to give an important impetus to the improvement of the Northern counties; but while the North feels duly thankful for its inauguration, even at this late period of time, she is not ignorant of the fact that had a similar system been adopted years ago, as it should have been, her population might ere this day have been doubled under its influence. Almost ten years have now rolled away since Congress bestowed upon our State some five and a half millions of acres of land, under this so-called Swamp Land Act, the proceeds of which were to be expended in the drainage and improvement of these lands and their respective localities. Year after year has the voice of our Northern members been imploringly raised, in behalf of these Northern wilds, and in favor of taking early steps to carry out the trust imposed by the Swamp Land grant. Slowly, but steadily have they succeeded in impressing public opinion with a sense of the justice of their cause; but "truth is powerful and will prevail," and it is with joy that the inhabitants of the Northern counties hail the inauguration of that line of policy, which acknowledges the obligation of the State to drain and reclaim her "swamp lands." These five and a half millions of acres, large as they seem, to contemplate, still constitute but a small portion of Northern Michigan; but they are so dispersed as to constitute a strong barrier to the progress of our pioneer settlements. The work on several of the State roads, so liberally endowed under the provisions

of the act of our last Legislature, has been commenced in good earnest, and is now rapidly progressing, under circumstances that give promise of their early completion. When so completed they will doubtless prove of incalculable value to the new counties; and as they absorb but a small portion of the lands embraced in the grant, the savans of our land will hereafter have ample opportunity of exercising their wisdom, in extending a similar system of improvement to regions hitherto neglected. One of the wisest provisions of the legislative act under which these roads are being built, is one what empowers the State cabinet, as a board of drainage commissioners, to expend one hundred thousand acres of swamp land, or the proceeds of the same, in the construction of ditches in the organized counties where these lands are situated; but it is to be regretted that though the official term of office of the present cabinet has now more than half expired, but one contract has yet been let under this provision, and that for an amount of only about four thousand dollars.

As this question of drainage and of roads is of the utmost importance to the agricultural interests of our new counties, I hope the length of this article may be pardoned; and if deemed worthy of insertion, the writer may perhaps offer further remarks upon the subject hereafter.

NORTHERNER.

Physical Action of Water.

FROM PARKER'S ESSAYS ON THE PHILOSOPHY AND ART OF LAND DRAINAGE.

The consideration of the well-known effect of drainage on soils surcharged with water, naturally leads to an examination of the causes of the change produced in them by so simple an operation. A soil perfectly dry, or one perfectly wet, i. e., constantly drenched with water, would be nearly alike sterile; and we may conceive that some certain proportions may exist between the amounts of heat and moisture adapted, so far as their agency is concerned, for bringing a given soil, in a given latitude or situation, to its maximum state of fertility. The researches of different philosophers have elucidated the laws which pertain to water, in its several states, as a fluid, a solid, and a vapor or steam. There is, probably, no natural substance which has been investigated with greater success, and there is, perhaps, no other substance which performs more numerous or more important parts in its action on soil, and in the economy of vegetable life, than water. In its chemical relations to the solid saline, and gaseous constituents of soil, there may be still something to discover; but its physical properties as regards heat, its operation as a solvent, and its mechanical laws, are sufficiently ascertained to enable us to understand, and explain satisfactorily, the various benefits that are afforded to wet soils by drainage.

If a soil be saturated with water, the nobler classes of plants cannot flourish; they vegetate more or less imperfectly, until the quantity of water be so diminished as to suit their habits. The reduction of the excess of water to the due preparation can only be effected, naturally, by its gradual evaporation, i. e., by its conversion into vapor; and its transition from the fluid to the aeriform state is accompanied by the absorption of so large a quantity of heat from the soil in contact with it, that it may be convenient to consider its action in this respect first, and to endeavor to appreciate its amount.

When water is set over a fire in an open vessel, its temperature, as indicated by the thermometer, cannot be made by any force of fire to exceed 212 deg., under the mean atmospheric pressure of about 30 inches of mercury. The temperature of the water then becomes stationary, and the heat of the fire is afterwards expended in converting the water into steam or vapor. The temperature of the steam continues to be precisely that of the water, and it has been found that it requires about six times as much heat to boil off any given volume of water as would raise the temperature of that volume from 50 deg. to 212 deg. Hence it is concluded that the difference, or $162 \times 6 = 972$ deg. of heat, have passed through the water, and entered into the composition of every atom of steam. Steam, therefore, has a much greater capacity for heat than water. These continual accessions of heat are absorbed by the steam in the act of its formation, and become what is termed latent, i. e., insensible to the thermometer, which, plunged in the steam, marks only the same temperature as that of the water from which it was generated, viz., 212 deg. This latter is termed the sensible or thermometric heat of the steam. That the whole of the heat thus expended in changing water from its fluid into its gaseous state has entered into the steam in water, when it is found that a

pound of steam will raise about 6 lbs. of water from 50 deg. to the boiling-point.

Water is vaporizable at all temperatures when exposed to the atmosphere. Its expulsion from the earth does even, under certain circumstances, continue when the atmosphere is replete with moisture, or at what is termed the dew point. And it is most important to observe that, at however low a temperature the water in the soil, or that of the atmosphere incumbent on it may be, at which vapor is formed and expelled, the same amount of heat is carried off by a given weight of vapor as if it had been generated in the open vessel over the fire above referred to, or in the close boiler of a high-pressure steam-engine. A practical confirmation of the truth of this law has been obtained by evaporating water under widely different pressures, when it appeared that the same weight of fuel (or measure of heat) was consumed in converting equal bulks of water into steam at all those different pressures. It is ascertained that it requires as much heat as 2 or 3 ounces of coal will produce to convert 1 lb. of water into vapor; it is, therefore, evident what an enormous quantity of heat must be taken from the soil in cases where water is allowed to remain stagnant upon it till it evaporates.

As heat is generally considered to be an imponderable body, we are without the means of ascertaining directly, by weight or measure, the quantity of heat absorbed from soil by the evaporation of water. The following illustration of it will, however, be familiar enough to the mind of the engineer, and will also, I think, enable intelligent farmers to form an idea of its immense amount.

If we suppose the rain falling on the surface of an acre of land in the year to be 30 inches in perpendicular depth, it would amount to 108,900 cubic feet—3,038 tons; which, spread over a twelvemonth, gives an average of 298 cubic feet—8½ tons, or 18,647 lbs. per diem. This weight of water would require, for its diurnal evaporation—supposing it were all carried off by that means—the combustion of about 24 cwt., of coals, as ordinarily used under a steamboiler, or 1 cwt., PER HOUR PER ACRE throughout the year! We thus obtain some idea of the abstraction of heat from land under the circumstances of perfect aqueous repletion and stagnation, and there are too many soils approaching to them. We may also imagine the depression of the terrestrial temperature consequent on the abstraction of so much heat from the mass of the soil—a depression which must ever be in proportion to the excess of water present in the soil, over and above the due complement required for the supply of vegetation. Soils in that state must necessarily be very cold in the spring months, and much colder at the time of the commencement of vegetation, and throughout the summer, than well-drained or naturally drier lands. If we knew the capacity of heat of any given soil, and the weight of water mixed with it in excess over the proper complement necessary for vegetation, it would be easy to determine, very nearly, the depression of temperature caused by its evaporation. We know that the heat of a pound of water in its gaseous state, that is, as steam, would raise the temperature of about 1,000 lbs. of water one degree; so that, if the specific heats of the solid and fluid bodies were alike, the evaporation of a pound of water would keep down the temperature of 1,000 lbs. of earth one degree; of 500 lbs., two degrees; and so on.

Secondly; excess of humidity obstructs the absorption of heat by the solid matter of the soil. Water in a quiescent state, is one of the worst conductors of heat with which we are acquainted. If it be warmed on the surface—and it derives, when mixed with soil, nearly all its heat from the sun's rays—water transmits little or no heat downwards.

If a mass of water be heated from below, the whole quickly attains a uniform temperature by reason of the motion excited among its particles. The lowest stratum, when heated, becomes of less specific gravity than that resting upon it, and the heavier superincumbent portions descend and push that which has been warmed upwards. In this manner rapid circulation is induced. If, on the contrary, it be heated from above, i. e., on the surface, the film of warmed water floats on the top, by virtue of its superior levity, and no heat is conveyed below; there is no circulation from above downwards. Much of the heat of the sun's rays is, therefore, prevented by excess of water from entering into, and being transmitted through, the mass of the soil.

Thirdly; water is a powerful radiator of heat, i. e., it cools quickly. All bodies, whether fluid or solid, possess peculiar powers of emitting or radiating heat, and water was esteemed by the late Professor Leslie—in which opinion he has been joined by other philoso-

phers—to stand at the head of radiating substances.

The phenomena of the production of cold by radiation and evaporation are elegantly exemplified by the well-known experiment of exposing water, warm enough to give off visible vapor, in one saucer, and an equal bulk of water drawn from a well in another saucer. The former, on a sharp frosty morning, will be found to exhibit ice the soonest. The cooling powers of evaporation and radiation combined, and of radiation chiefly, or solely, are represented in this experiment by the order of congelation in the two vessels in time; but the difference in the quantity of heat emitted from each of them is immense, as appears from what is stated above with reference to the constituent heat of vapor.

Fourthly; as the temperature of water diminishes during the night, or in the daytime, according to the varying conditions of the atmosphere, by radiating its heat to the heavens, its specific gravity increases; and the superficial stratum, which is first cooled, immediately descends by reason of its augmented density. This film of cooled and heavier water is as quickly replaced by relatively warmer and lighter portions, which became cooled in turn, and successively sink. Water, therefore, though a non-conductor of heat downwards when warmed on the surface, becomes a ready vehicle of cold in that direction when cooled on its surface; and this cooling process may even continue, under fitting circumstances, until the whole of a given mass is reduced to the low temperature of about 42 deg., at which point water attains its maximum density. The further descent of cold through this process would then cease; but the refrigeration occasioned by it must affect all soils, to a greater or less degree, which hold water in excess, i. e., when in a state of stagnancy near to the surface. Those soils can only be exempt from this chilling influence which are naturally retentive of water, or which are artificially and deeply drained.

Thus, excess of water conduces to the production of cold in soil, by means of several independent, vigorous and ever-active properties.

On the other hand, when a soil is naturally so porous, or is brought into such condition by art, (viz., by drainage,) that rainwater can sink down into the earth, it becomes a carrier, and tends to raise permanently, the temperature of the mass of useful soil; and this more particularly and beneficially during the vegetative season. Rain-water, at the time conveyed downwards the more elevated superficial heat of the soil, and imparts it to the subsoil in its course to the drains; it leaves the soil in a fit state to receive fresh doses of rain, dew, and air, and in a better condition to absorb and retain heat at the same time that it promotes, in other ways, its fertility and productiveness; but a consideration of the chemical effects attributable to the continual circulation and renewal of water and air is foreign to the present discussion.

In order to render the change of water perfect, and its action uniform throughout a field, all drains should be deeper than the active or worked soil, and covered. If drains are open, much of the rain precipitated on the surface necessarily passes into them before it has permeated the whole mass; consequently, it carries off with it heat, which would have been employed in warming the lower strata; and it may, at the same time, remove fertilizing matter. If drains are not deeper than the worked bed, water remains below in a stagnant state, which must chill the roots of plants, and diminish the temperature of the superincumbent mass.

Gardeners and florists are well aware of the injurious influence of water when supplied constantly to the pan instead of to the surface of the soil in the flower-pot; and bottom water, as it is frequently and very appropriately called, produces the same ill effects when stagnating too near the surface of the great agricultural bed.

Superficial drainage is comparatively of little value, and is, perhaps, exemplified in its worst practical form by land tortured on the ridge and furrow system. When land is permanently cultivated in high ridges, the crowns can obtain but partial benefit from the action of rain. The gradation from the comparative dryness and warmth of the summit, to the suffocating wetness and coldness of the furrows, is commonly evidenced by the state of the crops grown on land so disposed.

Price of Mules.

The Jay county Torchlight, Indiana, states: "There were several mule buyers in this county last week, who paid high figures for such stock. They paid for sucking mules, \$40 to \$50; for yearlings, \$60 to \$70; and for three year old, \$80 to \$150.

MICHIGAN STOCK REGISTER.

SHORTHORNS.

Numbers with an "s" following them refer to the English Herdbook—all others refer to the American Herdbook, unless otherwise noted.

No. 124—GOV. WISNER. Roan Bull. Calved Jan. 31, 1859. Bred by J. D. Yeakes, Northville, Michigan.

Sire, Guelph, No. 109 Mich. Stock Register, by Fergus, out of Red Rose by Berry, 4140e; Cinderella by Clecro 2885e.

Dam, Fanny by Duke 89 of Mich. Stock Register.

1 g. dam, Belle by Yonondio 1110.

2 g. dam, Star by Old Splendor 767.

3 g. dam, — by Romsen 195.

4 g. dam, — by imported Windle 185 (5667e).

[This is a very fine yearling, possessing many of the good points of his sire, Guelph, a bull remarkable for his constitution and for giving his stock the property of fattening with ease at an early age. The blood on the side of the dam ensures quick growth likewise. Duke was one of the largest bulls at three years old ever seen in this State.—Ed.]

Cost of Young Stock.

T. B. Bailey of Newbury, Vermont, makes the following very sensible estimates on the cost of young stock, and of raising them, in the New England Farmer.

COST OF A COLT.

A colt, for instance, taken as an average, 4 months old, is worth \$20; the use of horse and mare and other expenses is worth \$12; leaving \$8 net profit. It will cost about \$8 for forage the first winter, and 10 cents a week for pasturing 26 weeks, making the whole cost, \$2.60 + \$8 + \$12 = \$22.60. The colt is now worth \$30. The second winter it will not cost much more for forage than the first; as the colt will eat a great deal that other cattle leave, say \$10; pasturing 15 cents a week, \$3.90. Cost \$36.50. Worth \$45. Third winter, \$15; pasturing twenty cents a week, \$5. Colt is worth \$65. Cost \$56.50. Fourth winter, \$20; pasturing, 25 cents a week, \$6.50. Cost \$83. Worth \$90. Here we have a net profit of \$7 on a colt 4 years and 4 months old, which is one dollar less than the profit on the same colt at 4 months old. The prices which I have set may be called small, but there are more sold under those sums than over them.

If the colt has been worked in this time, which should not be done, it probably has not done any more than enough to pay for breakage and the interest on \$20, which will amount to over \$5.

COST AND PROFIT ON SHEEP.

A good lamb 6 months old is worth \$2. Let us keep the sheep four years, with

	Dr.	Cr.
First investment.....	\$2.00	
Cost of wintering, \$1.50; pasturing 30 cts.	2.00	
Income, or gain, 5 pounds wool at 35 cts.		1.75
Second year; cost of keeping.....	2.00	
Income 1 lamb, \$2, 8 pounds wool, \$1.05.		3.05
Third year, Dr. to keeping sheep and lamb	4.00	
Cr. by 8 pounds wool, 35 cts.		2.80
Cr. by one lamb.....		2.00
Fourth year, Dr. to keeping 8 sheep.....	6.00	
Cr. by 2 lambs, \$2 each.....		4.00
Cr. by 11 pounds wool, 35 cts.....		3.85
Income of one sheep for 4 years.....		\$17.45
First cost, and cost of keeping same time \$16.00		
Net profit.....		\$1.45
The old sheep is worth as much as when bought.....		2.00
The yearlings, or 2 years old, 50c extra.....		1.00
Which leaves, after paying all expenses.....		\$4.45

COST OF A HEIFER.

A calf one month old, if well fattened, is worth \$4. Now let us see how much profit there is on a "fatted calf." Perhaps I may be wrong, but I should say, it should have 8 or 10 quarts of new milk a day. 8 quarts at 2 cents a quart for 31 days will amount to \$4.96.

If I am right in my estimate, there is no profit in fattening calves, at the prices we get here. If the calf is to be raised, it may be fed on part skim milk, and will then cost all it will be worth at six months old, \$5. It will cost as much as a ton of hay is worth to winter the calf well, \$8. It is worth 8 cents a week for pasturing, \$2.08. Second winter same as the first, \$8. Pasturing 12 cents a week, \$3.12. Cost, at 2 years and 6 months old, \$26.20. The usual price at this age is \$20. As another year's keeping and growth would not materially alter the relation of cost and profit, and as there are more cattle—heifers especially—sold at this age than at any other, I shall not follow this subject any farther. It has always been conceded by farmers that it costs as much to winter a calf as it does a yearling; and if any one can make the figures count up any different, or in any way make both ends meet, I should be glad to have it done.

Saving Manure.

It is estimated that a well fed cow will yield about a ton of solid and liquid droppings per month, and that to absorb this, three tons of marsh muck may be used, which, if she is allowed to stand upon it and work it up, will thus give four tons of the most valuable kind of manure. This estimate is made by Mr. Holbrook of Massachusetts. But it is too high; we doubt if any single cow will make in five months, or during one winter, twenty tons of manure.

The Garden & Orchard.

Plymouth Farmer's Club.

SELECTION OF TREES AND MANAGEMENT OF ORCHARDS.

BY T. T. LYON, PLYMOUTH, MICH.

In the choice of soil and location for an orchard there was much difference of opinion among the members. While many preferred a light, sandy soil, as the most easy and pleasant to manage; others urged that orchards would be likely to prove more hardy, and longer lived, on a heavier soil. Perhaps a majority of tastes would have been best suited with a sandy loam. There seems to have been great unanimity in the belief that all orchards planted upon retentive subsoils should be thoroughly underdrained, and that even many of what are usually considered our best corn soils could be, profitably, underdrained before being planted with fruit trees.

The necessity of a thorough fitting and manuring of the ground preparatory to planting it with trees, was strongly urged; although cases were stated where the soil was supposed to be already too rich, and where a starving process was held to be necessary, in order to check the production of wood, and induce the production of fruit. One individual stated that his trees had grown thriftily while the ground was occupied with grass, but that they produced very little fruit till he had given the ground a thorough plowing; running the plow close to the trees, and cutting off large quantities of roots, which occasioned the production of a large crop of fruit, the next year. The same person farther remarked, that the orchard was again in grass, and that it was again falling off in fruitfulness, so that he contemplated a repetition of the root pruning process. This case was considered anomalous; and it was urged that this process of root-pruning is necessarily depletory, and must, if continued, ultimately, seriously, if not fatally affect the health of the trees.

Several methods were proposed for the laying out of the ground preparatory to planting, in order to insure that accuracy of alignment which all were agreed in considering essential to the convenience of future cultivation, as well as to the workmanlike appearance of the plantation. One of these methods proposed the careful laying off of the ground into rows, in both directions, and the planting of two or more stakes in each row each way so that they should not stand at the intersections of the rows; when the workman will be enabled to dig his holes, and plant the trees, at the intersections of the rows of stakes, without disturbing such stakes till the work is complete; thus using them as guides, both in digging the holes, and planting the trees.

Another process, which by some is preferred to the above, is to lay off the ground carefully, by planting a small stake for each tree in the usual manner. A strip of board eight or nine feet long is then provided, in which are bored three auger holes, in line with each other, one at each end, one in the centre. To the end holes are loosely fitted two pins, or stakes, and a notch or gain is cut in one side of the board, at the centre, down to the hole; which must be of sufficient size freely to receive the bodies of the trees to be planted, as well as the stakes used in laying out the ground. When the apparatus is to be used in planting a tree, the workman places it over the place of planting, so that the stake occupies the centre hole, and drives the pins through the end holes, into the ground. The board is then taken up, leaving the end pins in their places in the earth, and the hole is dug as usual. The board is then replaced upon the pins, and the tree placed in position for planting, with its trunk resting in the centre hole; the board serving to support it while the workman is filling in the earth about the roots. It is obvious that this apparatus obviates all danger of displacing the tree in the process of planting, and where the stakes are correctly placed, must give assurance of a high degree of accuracy.

The Apple Borer.

In looking over the report of the Pomological Congress recently held at Columbus, I was much pleased to observe that those eminent horticulturists, Batcham, Heaver, Warder and others give their support to my system of low-limbing as a preventive of the depredations of the apple borer, first promulgated by me some years ago in the *Country Gentleman*, and which has been most fully verified by later experiments on trees already nearly ruined by that vile pest. These trees I immediately headed in, and inserting grafts lower down on the trunks, and in a year or two thus obtained the shade requisite to prevent any further attacks of the borer. The

old wounds are rapidly growing over, and those same trees begin to assume as healthy an appearance as any in my orchard.

But, if permitted to judge from the facts that have come under my individual notice, I must beg leave to dissent from the opinion which has been expressed that "this insect attacks none but unhealthy trees." I am certain that this is an error; and one instance out of many will doubtless suffice to prove that I am correct.

Eight years ago I planted a row of Golden Russets, as thrifty trees as were ever purchased from any nursery, but which, as usual, had long stems. I neglected to head them in, and this, together with their native tendency to an upright growth, gave the borer a fair chance. Healthier trees could not be desired, and yet many of them have fallen victims, whilst none have entirely escaped injury. I never can believe that the insect would, as a matter of choice, prefer the dry, juiceless bark of a sickly tree in which to deposit its eggs; and the only reason why the dry side is chosen is the very obvious one, that, as a considerable degree of heat is required to hatch the eggs, they naturally select that side most exposed to the sun's ray.

As an evidence of the amount of heat required for that purpose, all pomologists must have observed the comparative immunity from their attacks enjoyed by the trees in a cool, wet summer. On the occurrence of such seasons I give myself but little trouble about them.

I shall conclude by re-affirming that the borer nuisance may be completely abated by growing our apple trees in the bush form.—It is only to be regretted that the curculio and the woolly aphis can not be as easily managed.—T. V. P. in *Scientific Artisan*.

Extraordinary Growth of Tea Rose.

Tea Rose *Devoniensis* has been characterized as the "Tea Rose par excellence," but Glorie de Dijon promises to eclipse this and every other rose for general culture in this latitude; since its introduction here, four years ago, I have not heard of its being injured in the slightest degree by cold, though during that time the winters have been more severe than for thirty years previous. Some Roses are more injured here in open winters than in hard winters, in consequence of winter growth, but we have had upon the Dijon Rose two hard and two open winters, and I have never seen even the extremities of the shoots injured in either case. I notice that some of our florists class it with *Noisette*, but it is most essentially a Tea Rose, and I think the *Devoniensis* ought now to yield the palm.—For fragrance it is a fair rival, and for other desirable qualities pre-eminent above all others. Its color is, at times, fascinating, though variable; sometimes it is very yellow, sometimes salmon, pink and yellow mixed, and sometimes cream; but when it puts forth a huge cup-shaped flower, with smooth petals, grading in color from a pink and yellow margin to a deep salmon centre, it is matchless. Its foliage is not the least of its charms and good qualities, and I have never found any rose so well adapted to cultivation in the greenhouse as the Dijon, either in pots, vases, or upon the walls; withal, it bears seeds, and gives promise of a progeny that may be free from its only defect. Its petals are sometimes ragged, giving it a wilted appearance and disqualifying it for bouquets; but its growth and habit outweigh all its other merits, and cancel all objections, and, if any of our nurserymen are fastidious about *bedded roses* they may as well cede the point so far as the Dijon is concerned. It grows well upon its own roots, but from four years' experience I am satisfied that its growth is incomparably better when budded; and, if the following description of the growth of a budded Dijon bush, in one season, can be equalled anywhere by a Dijon on its own roots, I shall be ready to cede my position. A Dijon bush budded upon a Manetti, set out upon the eastern wall of a house, this spring, has, by this time, accomplished the following extraordinary feat: It has made one shoot of 14 feet, 1 of 13½, 1 of 13, 1 of 12½, one of 7, one of 8, and one of 3 feet, and, in the aggregate, has, therefore, grown 71 feet in one season—and this is the first season of its setting out. In all this exuberance of growth, it has not been devoid of flowers, and Rose connoisseurs will be surprised to learn, that while all this vegetation has been supplied through the roots of the Manetti, this latter has never offered to send forth a shoot or sucker from itself. Time may show to the contrary; but thus far I find that the Glorie de Dijon, and also the American Rose, entirely suppress the tendency to sucker in the Manetti stock, and, doubtless, this will be the case with vigorous growers generally.—*Gardener's Monthly*.

Hints on Transplanting.

FROM ELLWANGER AND BARRY'S CATALOGUE.

THE PREPARATION OF THE SOIL.—For fruit trees the soil should be dry, either naturally, or made so by thorough drainage, as they will not live or thrive on a soil constantly saturated with stagnant moisture. It should also be well prepared by twice plowing, at least, beforehand, using the subsoil plow after common one, at the second plowing. On new, fresh lands, manuring will be necessary; but on lands exhausted by cropping, fertilizers must be applied, either by turning in heavy crops of clover, or well decomposed manure of compost. To ensure a good growth of fruit trees, land should be in as good condition as for a crop of wheat, or corn, or potatoes.

THE PREPARATION OF THE TREES.—In regard to this important operation, there are more fatal errors committed than any other.—As a general thing, trees are placed in the ground precisely as they are sent from the nursery. In removing a tree, no matter how carefully it may be done, a portion of the roots are broken and destroyed, and consequently the balance that existed in the tree is deranged. This must be resorted to by a proper pruning, adapted to the size, form and condition of the tree as follows:

Standard Orchard Trees.—These, as sent from the Nursery, vary from five to eight feet in height, with naked stems or trunks, and a number of branches at the top forming a head. These branches should be all cut back to within three or four buds of their base. This lessens the demand upon the roots, and enables the remaining buds to push with vigor. In the case of older trees of extra size, the pruning must be in proportion; as a general thing, it will be safe to shorten all the previous year's shoots to three or four buds at their base, and when the branches are very numerous, some may be cut out entirely.

Pyramidal Trees.—If of two or three years' growth, with a number of side branches will require to be pruned with a two-fold object in view, viz: The growth of the tree and the desired form. The branches must be cut into the form of a pyramid by shortening the lower ones, say one-half, those above them shorter, and the upper ones around the leading shoot to within two or three buds of their base. The leader itself must be shortened back one-half or more. When trees have been dried or injured much by exposure, the pruning must be closer than if in good order.

Dwarf Standard Trees and Dwarf Bushes.—Must be pruned as recommended for standards, aiming at producing a round, well-proportioned head, with the main branches regularly distributed and far enough apart to admit air freely to all parts.

Yearling Trees intended for Pyramids.—Some of these may have a few side branches, the smallest of which should be cut clean away, reserving only the strongest and best placed. In other respects they will be pruned as directed for trees of two years' growth.

Those having no side branches should be cut back so far as to insure the production of a tier of branches within six inches or less of the ground. A strong yearling, four or six feet, may be cut back about half, and weaker ones more than that. It is better to cut too low than not low enough, for if the first tier of branches be not low enough, the pyramidal form cannot afterwards be perfected.

PLANTING.—Dig holes in the first place, large enough to admit the roots of the tree to spread out in their natural position.—Then, having the tree pruned as above directed, let one person hold it in an upright position, and the other shovel in the earth, carefully putting the finest and the best from the surface among the roots, filling every interstice, and bringing every root in contact with the soil. When the earth is nearly filled in, a pail of water may be thrown on to settle and wash in the earth around the roots; then fill in the remainder, and tread gently with the foot. The use of water is seldom necessary, except in dry weather, early in fall or late in spring. Guard against planting too deep; the trees, after the ground settles, should stand in this respect as they did in the Nursery. Trees on dwarf stocks should stand so that all the stock be under the ground, and no more. In very dry, gravelly ground, the holes should be dug twice the usual size and depth, and filled in with good loamy soil.

STAKING.—If trees are tall and much exposed to winds, a stake should be planted with the tree, to which it should be tied in such a manner as to avoid chafing. A piece of matting or cloth may be put between the

tree and the stake.

MULCHING.—When the tree is planted, throw around it as far as the roots extend, and a foot beyond, 5 to 6 inches deep of rough manure or litter. This is particularly necessary in dry ground, and is highly advantageous everywhere, both in spring and fall planting. It prevents the ground from baking or cracking, and maintains an equal temperature about the roots.

AFTER CULTURE.—The grass should not be allowed to grow around young trees after being planted, as it stunts their growth and utterly ruins them. The ground should be kept clean and loose around them, until at least they are of bearing size.

Treatment of trees that have been frozen in the packages, or received during frosty weather.—Place the packages, unopened, in a cellar or some such place, cool, but free from frost, until perfectly thawed, when they can be unpacked, and either planted or placed in a trench, until convenient to plant. Treated thus, they will not be injured by the freezing. Trees procured in the fall for spring planting, should be laid in trenches in a slanting position to avoid the winds; the situation should also be sheltered and the soil dry. A mulching on the roots and a few evergreen boughs over the tops, will afford good protection.

The Effect of the Curculio on Fruit.

From a few notes of what Dr. Fitch said about the curculio in the *Ohio Farmer*, we obtain the following observations upon this insect.

1. The curculio is the most injurious insect in the country.
2. It is a native to this continent, and was first noticed in the nectarines about Philadelphia one hundred years ago. Since then it has attacked apples, cherries, and other fruits as well as the plum.
3. It is not yet known where it lives for three-fourths of the year. The following is the result of the observations made upon it so far.

It makes its appearance on the young fruit, when about half grown, and, cutting a crescent-shaped gash, it deposits a single egg, and only a single one, in each plum. This hatches into a small, white worm, which feeds upon the juices of the fruit till it is destroyed, and falls to the ground. It then goes into the ground, undergoes the changes, and in about six weeks comes out again, as a beetle. The time when it first makes its appearance varies from the first of April to the middle of May, when they may be found on our apple, cherry, plum, butternut, and other trees. Quite late in the fall, we find them in abundance on the Golden Rod. When the fruit is large enough, they attack it, and, being decided epicures, select the largest and best specimens. No matter how full a plum tree may be, it will be sure to find every one of them.

I think the less productiveness of our apple orchards now than formerly, is due to this insect. About the first of July, inspect the fallen fruit from an apple and plum tree, and you will find both to have perished from the curculio worm. As before remarked, the larva goes into the ground about the first of July, and in a few weeks comes out again as a beetle. The question here arises, Where, and upon what do they now feed, as there is no young fruit? The fact that they come in the spring, weeks before the fruit on which they feed is fit for them; and the fact that they are as abundant after the fruit is gone as before, is good evidence that they breed in other places, and feed on other food. The fact is now well established that they breed in those excrescences known as the black-knot, on the plum and cherry tree, just as well as in the fruit of these trees. Fifty years ago, Melshelmar stated that they breed in the bark of the peach. Four years ago, I found larvae in the bark of the pear, which, I have reason to suppose, were of the curculio. These insects are so abundant and large on the bark of the butternut, as to show that this tree is a favorite abode for them. Now, as no fruit is found on this tree like the plum or apple, is it not probable that their eggs are laid in the bark, and that here the larvae feed, and pass the winter? In my opinion, there are three generations of these pests, in a single year, two of which live in the bark of trees, and when the fruit is of proper age, one generation of larva feed upon it.

Until within a few months, no parasite had been discovered of the curculio, but last summer D. W. Beadle sent me some specimens of insects, which I have found to be a parasite to it, and I have called it *Curculio Parasite*. It lays its eggs in the larva, and one insect will destroy one hundred of them. It is greatly to be hoped they will multiply and spread, wherever this pest is found.

HORTICULTURAL NOTES.

Who wants Pruning well Done.

We call attention to the advertisement of Mr. Krupp in another column. He is one of the most skillful gardeners in the State, perfectly acquainted with the whole business of the treatment of vinerias, greenhouse plants, and floriculture.—Those who want such a help, cannot find any one more skillful or attentive to the business.

Father Abraham Apple.

Dr. Warder, when at the meeting of the Illinois Horticultural Society, said he would like to speak a good word for a little southern apple—the "Father Abraham," a variety well known and highly esteemed by the Egyptians and Kentuckians. It keeps till June, and to his taste was superior in flavor to the Northern Spy.

Iron Hot-bed Sashes.

Samples of iron hot-bed sashes were presented to the Cincinnati Horticultural Society, by the inventor, James O'Shaughnessy of that city, and were highly commended for durability, lightness and strength, as well as for handiness in management.

An Inquiry.

Wm. B. Perrott, of Buchanan, writes, "I am probably in the same position as many others, without much experience in setting out fruit trees. I have a few acres, the soil of which is a clayey and gravelly loam, and mostly exposed to the north and east, slightly elevated. These acres I design to plant with fruit trees, such as apples, pears, peaches and grapes, and would feel grateful to any of your correspondents who, having had experience with the right sorts for such a locality and soil, would give me the benefit of it through your columns."

The Catawba not a First-rate Grape.

Mr. George H. Hermann, of Hermann, Missouri, at the late meeting of the Missouri Horticultural Society, insisted on placing the Catawba grape on the rejected list, as one of the varieties that has had its day; for the reasons that it was uncertain as a crop, it was liable to disease, mildew, rot, and other casualties, and there were now to be had varieties surer, better and more profitable.

Ellwanger & Barry's Catalogue.

We have received the descriptive catalogue of the Rochester nurseries, and find it a very instructive list of the fruits grown in the well known grounds of these great tree and fruit growers.—We copy in another column the brief instructions given for the treatment of trees. In the preface to this catalogue, the following notes are made relative to new varieties of fruits:

NEW VARIETIES OF PEARS.—There is a great falling off in the anxiety to obtain new pears, the attention of cultivators and even pomologists, being more particularly occupied with experiments to ascertain the best of those already introduced, and the best mode of cultivation. This has already had a beneficial effect; hundreds of indifferent varieties have already been discarded; Catalogues are getting out down to reasonable dimensions, and this, with an improved cultivation, will in a few years, place pear culture in a greatly advanced position.

DWARF PEARS.—The cultivation of dwarf pears has been fully discussed in the Horticultural and Agricultural journals, and the result has been to bring the matter prominently before the public, and draw out the experience of cultivators.

It has been ascertained and established beyond a doubt, that the causes of failure have been uniformly, unskilful and careless cultivation, combined with unsuitable stocks and an improper selection of varieties. With the experience now acquired, the planting of dwarf pears is more extensive than ever; it is now taken up with confidence, and will be prosecuted with success. The country will accomplish more in this department during the next five years than it has done in the last ten.

In apples there is very little new; dwarf trees on *Paradise* stocks for gardens, and low standards on *Doncin* stocks for orchards in exposed situations, are receiving increased attention.

NEW FRUITS.—No new peaches, plums, apricots or Nectarines, of any importance. The small fruits are of more general interest than ever—the new large currants and the blackberries taking the lead. New strawberries are numerous, many of them of little or no value. "The Albany," for its productiveness alone, has had a great run of popularity. "Hooker" has been in great demand, and so far has given fair satisfaction. Our *Genesee* holds its ground well, and many of the old sorts are as popular as ever. Among the foreign sorts, a few seem to adapt themselves remarkably well to our climate. The most prominent of these are *Tromph de Gand*, *Trolopes Victoria* and *Compe de Flandres*; these are all magnificent fruits of fair quality, and bear both our summers and winters well.

NATIVE GRAPES.—Native grapes have occupied a large share of attention in almost every part of the country, and the consequence has been the introduction of a large number of new varieties, and the re-introduction of many old ones, that had long ago been discarded as valueless. A few varieties, such as the *Delaware*, *Diana*, *Rebecca*, *Concord*, &c., will, beyond doubt, prove permanently valuable, whilst by far the greater number of new sorts will be objects of speculation for a time, and then be abandoned.

Cherry Selons.

Cuttings from cherry trees for selons should be made now, if not already done. The cuttings should be labeled and placed in sand in the cellar. Cherries require to be grafted early, if expected to succeed well.

The Apple Tree Borer.

In answer to a question put to Dr. Asa Fitch, the entomologist, at the close of one of his lectures at New Haven, he gave as a remedy for the apple tree borer the following receipt: "Rub the tree with common soap, thoroughly, about the first of June. I am confident this is a sure remedy."

James M. Thorburn & Co., of New York, the well known seedsmen, have just issued their catalogue for 1860, which may be had by sending for them. They send by mail flower seeds to any place from which orders may be sent.

Effect of the Oil in Corn-Whisky.

CONFESSION OF A DISTILLER'S SON.

FROM THE SCALPEL.

"My father was born in Massachusetts, and received the benefits of the schools of that State, and enjoyed the instructions of the best of parents, who feared God and kept his commandments. His circumstances were limited, and he advised his oldest son, Joseph my father, to seek a home in the West, where land was cheap. He did so, and soon laid the foundation of a home, and his future unexpected prosperity. Locating in the village of C., near the centre of trade, the growing trade and increasing numbers started the idea of a distillery. This was erected, and corn being cheap, the business soon brought into his hands a golden harvest. The stream was quick and deep.

"The neighbors flocked to the old black and smoky building for a drop to 'drown trouble.' They came, and drank, and many became the victims of the dreadful vice. My father escaped only by a passion that burned deep into his soul than rum. His love of gain overmatched his love of liquor; and, although he drank, he kept in a condition to pick all the stray cash among his neighbors.

"Saturday was a day of general recruit. Jugs, bottles, flasks, tin pails, and less delicate vessels, were brought to be filled for the Sunday's use. The building stood in a low ravine, to let off the surplus fluids of the place. A winding road led to it down a steep bank, from the side of which gushed a sweet, clear spring. Near the spring stood a 'milk-white-thorn,' which flowered every spring, and put on in summer a crop of red berries; they were beautiful to the eye and pleasant to the taste. Over and around this spot a rich cluster of chestnut, oak, hazel-bush, and willow was scattered, the latter always sought the brook-side as its best retreat. In spring this forest of young trees was covered with rich green foliage, and the thorns were always sure to flower, and made the spot one of great beauty. Below the high banks, on a point of rock, rested the whisky-house. Its sides and roof were black with smoke; beneath, its fires glowed like hell's mouth. From the black hole in the top issued a great column of gray smoke, that rose curling into the air, and when the wind was strong its rising clouds drifted almost against the white spire of the church, which stood just above on a high bank, all embowered in a grove of young chestnuts. It stood there so still and quiet, that one loved to linger near the spot. Just back of it, and directly above the black hole, where stood the distillery, was the grave-yard with its green mounds and white marble stone at head and foot, and scattered here and there was a stray rose-bush, near the place of some loved one, generally near the short graves, the place where the young and innocent slept.

"Father was a Christian; at least he belonged to the church, owned a front-pew, and once had run close for the holy office of deacon. But for a mishap he would have been elected. Drunkenness was rife, fights were frequent, imprisonment was a resort to keep the peace of the town. The desolation spread on every hand, and at last an awful event startled the town and moved them deeply. W—, the leading merchant who sold all of my father's liquor that went to a distance, had amassed wealth, and stood high in the congregation. Knowing that 'old rye' was greatly prized at the east, he ordered all the barrels for that market to be marked 'Old Rye,' a black brand on the red painted cask-heads; beneath slept crime and death.

"My father and the merchant had learned that death lurked in the spirits of corn, and the latter had furnished his father with a full supply, and helped the old man into the next sphere, which left him in the enjoyment of a neat little estate. The old W— was buried in due form, and was wept too by the church of which he was a 'bright and a shining light.' Prosperity worked hard upon the son; he repeated his cups, and made them deeper; and one morning his poor body was found under the thorn, just by the spring, between the still and the church. This raised suspicion in the whole town as to the morality of my father's business, the minister hitherto having kept silent; so many of his best members were dealing in it and using it, nay, he sometimes indulged in 'bitters' himself. A long funeral train followed the rich rum-seller to his grave. He was quite rich since his father's death, and the people mourned for him with unfeigned sorrow. His body was deposited under the shade of a pretty pine, and a sheet of snow soon fell to cover the mound of earth. This most sorrowful event defeated my father for the church office, and led to a general reformation. He told

me that his business was evil, and must be abandoned; besides, said he, 'I have cash enough, and can afford to quit, it has paid well. Listen, my son, to what I have learned in this business in twelve years. I have got rich, but all my neighbors are intemperate; twenty have been in prison, three have committed suicide, five families are in the county-house, twenty men have lost their property, and more their senses. The curses of widows and orphans will follow me, and my only consolation is my gold. I have,' said my father, 'a secret for your ear—corn whisky has the devil in it. If you want to rob a man of his senses, give it to him. In its deadly stream lurks a large amount of pure oil; this is carried into the blood with the spirit, and sets up a most consuming fire in the drunkard's soul. When the man is carried down to a certain point, he is beset with a desire to burn and kill. It tempts the incendiary to his deed, and points the knife and the pistol, and what is worse, it carries the man down where he is unconscious of his own deeds, and the poor victim awakes to find himself a felon or a murderer. The spirit of rye has no oil in it, and does not inflame the blood as does that from corn; its elements are ethereal, and pass off sooner from the blood, while the oil in corn kindles a slow consuming fire; it is death.' This explains why W— marked his barrels 'old rye.' All Eastern dealers and distillers know it is comparatively safe and pure, and all who use it prefer the rye. The drugging of liquor with mineral acids and tobacco is nothing compared to this essence from corn! That noxious poison, strychnine itself, is safer; it is not discernible in the spirit from the taste, and is comparatively ephemeral in action. My father has been dead ten years, and I am in prison for an attempt on the life of my wife. The deed I suppose I must have committed, but the fatal secret which my father revealed, that corn spirits rendered the man unconscious of his impulses, put me in a condition to commit an act that has doomed me to this awful prison. This fatal liquor is the cause of most of the crime in our country. Doctor, tell all your patients to beware of it.' When I had heard this confession, I applied myself to the history it unfolded, and numerous distillers confirm the assertion, that spirit distilled from corn has much oil in it, and burns longer and more fiercely in the blood from the presence of this powerful excitant. While our country is drifting so rapidly to crime, it would be well to look to the suggestions in the above confession, which we assure the reader is literal and true. The convict labored out his time, and returned to his home, and died in three weeks. His wife attended him to the last.

N. P. Willis and his Company of Birds.

I have two very sociable sets of visitors, every morning early, in my study, at the north-west corner of the house; first, two or three little folks, in their slippers and nightgowns, who jump out of their beds to follow Laina the cook, as she comes through the entry, punctually at half past five, with the teatray, for my writing table and the bread for my presently expected birds; and, second, the fifteen or twenty little pensioners, in only their bare feet and feathers, who (when there is snow upon the ground) are certain to be at the outside of the window with the earliest daylight, and whom the children love to see made happy with the crumbs. It is a full hour after the tea-tray, of course, before the birds come; but, when we have broken up the crusts and strewn the feast over the roof of the portico, (early, so as not to frighten the youngest of them with the opening of the window,) we pass the rest of the time in telling stories before the fire, talking over the dogs and their behavior, and getting ready for the day's lessons and work. So you are introduced to our morning party, if you please—consisting of, say twenty birds on the outer side of the window, and, on the inner side, a rosy troop of little folks, and their Natural Penciller by the Way, best known to you by the initials of "N. P. W." Now, I looked with some little anxiety for the return of my birds with the first snow-storm this Winter. Every day, riding home in the edge of the twilight, I took a good look at the Olive Mountain and Skunkmunk (the parenthesis in our horizon which incloses all promises of storm,) and on one evening in particular, (I think Dec. 20,) my friend Torrey, the blacksmith, who hears from the weather by rheumatic telegraph, had sung out, as I passed his shop in the village, that he "felt a snow-storm in his bones." And it came, accordingly. Enter Laina with my tea, the next morning, and the kind dark face under her bandanna was quite a contrast to the snow-white homelocks looking in at the windows. Of course we should see the birds!

The bread-feast was soon crumbled and spread, and the little night-gowns and I waited patiently for our feathered guests with the daylight. And oh! such a fluttering as there was, with the first gray over the mountains in the east! The dear old birds were there (the same, I knew, by their finding their way to the same tree-hidden window-sill at the coldest corner of the house)—and there they were all made happy by the breakfast they expected! And I and my little folks were as happy as they! It was so delightful to find that we could soften the Winter for the poor little houseless ones outside the window in the cold—so delightful that they were happier for us—that we were remembered and revisited by them for our kindness of last year! It is something to be thought of in the woods—something to have birds that would be sorry if we were gone! They would not know—such little ones as these—why the death that might come to us should stop remembrance of them; and, with every willingness to go hence when my time shall come, I could wish (I trust it is not irreverent to say) that there were hope of still being joyfully remembered at the waking of beloved ones, and of still ministering kindly—watching and crumb-giving from the windows of the spirit land!—*Home Journal*.

Fresh Hints on Butter Making.

With reference to the position of the dairy, it is scarcely necessary to say that it should be so placed as to be as little as possible exposed to the sun in summer, and have provision for keeping up the necessary temperature in winter, and for the admission of a free circulation of pure air as necessity may require, having also at hand a never failing supply of clear spring, and also of hot water. The size of the churn and other dairy utensils should, of course, be proportioned to its requirements, and at all times scrupulously clean. It sometimes happens that the milk and cream are all churned, and at other times the cream only.

When cream only is churned—immediately after milking, when the milk is cooled, it is strained into flat dishes or pans of from three to four inches in depth, each meal's milk being always kept in separate vessels until the cream begins to get sour, which will occur sooner or later, according to the state of the weather; in summer from 24 to 36 hours, and in winter from 2 to 3 days. In skimming off the cream, however, one thing must be observed, that is, it must be skimmed before the milk gets sour, as the cream of sour milk always produces bad butter; and no matter how sour the cream gets when it is taken off sweet milk, the butter is still good.

As each meal's milk is skimmed, it is put into the cream crock, and as each succeeding skimming is added, the whole is well stirred up and mixed with a spoon or rod, which is kept for that purpose. And about every third day during the summer and autumn, the contents of the cream crock will be sufficiently ripe for churning, but during the winter and spring, when the weather is cold, it will require a longer time—frequently not less than four or five days. With reference to the preparation of the churn, as regards cleaning, &c., &c., and the straining of the cream, &c.—being so well known to every dairymaid, there is no necessity for any remarks on it here.

On the temperature of the cream, however, when put into the churn, and also on the process of churning, I may make a few observations. In summer or winter the temperature should be no higher than 60, no lower than 55 degrees. If lower than 55, it would take a longer time to churn it, and the butter will be soft and frothy. The usual time taken to churn here ranges from 30 to 40 minutes, that is, when cream only is churned. It may be done in half that time, or less; but the butter is never good. In the winter time the temperature is kept up by the addition of hot water during the process of churning; and in summer it is kept down by churning early in the cool of the morning. The operation of churning is seldom duly attended to, or its effect on the quality of the butter clearly understood. The process of churning should always commence at a slow, easy motion, until the consistency of the cream becomes liquefied, or reduced to a thin state; at this stage the motion should commence strong and rapid, (especially when hot water is being applied) and continued until the butter begins to form; then the motion should be gradually slow, until the butter is gathered.

If these conditions, as regards the temperature of the cream and the variation of motion during the process of churning, be duly attended to, I feel no hesitation in saying that the dairymaid will have very little trouble in

gathering the butter. It will be all in one lump, firm and well colored, and if not too much handled, but every particle of the buttermilk thoroughly washed out of it, and not over-salted, it will be solid and waxy, and have the sweet, nutty flavor, the true characteristic of first rate butter. When the entire milk and cream are churned the process is somewhat different, inasmuch as when milk is strained it is allowed to remain without being skimmed until the cream is sufficiently ripe for churning.

This point is ascertained when a thick, uneven scum or veil appears on its surface. As in the other case, each meal's milk is always strained into separate vessels; and although all the cream, when put into the churn, is not of the same degree of ripeness, still this does not affect the whole; and the temperature, as also the variation of motion during the process of churning, is precisely the same; besides, the quantity and produce of butter, when the entire milk and cream are churned, are found to be fully equal, if not better, than that produced from cream only.

And the only difference is, that a greater quantity can be churned in this way; but it requires a longer time, and much more labor in churning, than the other.

When the butter is gathered, it should be immediately taken off the churn, and washed and kneaded until every particle of milky water is completely washed out of it.

Some people use small wooden spades in preference to the hands for making butter; but cool, clean hands, well washed in warm water, and then rinsed in cold water, will make butter of first-rate quality. However, less handling may be given to it from the partial use of the spade during the process of washing. In the process of salting, the butter is thinly spread out, and the salt thinly spread over it by little and little, and the butter rolled and rubbed repeatedly until the whole heap is uniformly incorporated with the salt; but to insure uniform salting, one half of the salt only should be applied at once, and the butter lumped and set aside until next day, when whatever of milk or of brine will have remained will have exuded out of it; then the other half of the salt should be applied.—One ounce of pure, fine salt is found to be sufficient for one pound of butter intended for market, and only half that complement to the pound when it is intended for present use.—*JAMES BRADY, in Irish Farming Gazette*.

Fattening Hogs Unprofitable.

A correspondent of the *Connecticut Homestead*, thus relates three experiments on feeding hogs:

"I am induced to send you a few experiments I have made in this line of business; previous to which I will state that I keep my hogs in a warm barn cellar, with a southern exposure. My object was to ascertain whether I could get paid for the grain I gave them at the market prices.

FIRST EXPERIMENT.

My first trial was with a thrifty barrow-shoot bought on the 29th of November, 1856, weighing upwards of 150 lbs, for which I paid \$10.50. I kept it about the 20th of the following March, principally on scalded Indian meal, giving it as much as it would eat, without wasting any. It then weighed, when dressed, 223 lbs., at 9½ cts. per lb., the price I then got, amounted to \$21.18; the cost of the grain given him at the market price, \$1 per bu., was \$13.50, making with cost of hay, \$10.40, a total of \$24; loss \$2.82. The increased value of manure would sell for the trouble of feeding.

SECOND EXPERIMENT.

My second trial was with two barrow pigs, which weighed alive on the 15th of Dec. 1858, 190 lbs; the largest 125 lbs, the other 65 lbs; worth at 6½ cts per lb. \$12.35. Supposing they could be kept cheaper, and the same time grow and fatten as well on a mixture of cob-meal, rye meal, fine feed, a little sour milk and boiled small potatoes, they were so fed till the 25th of March, when both weighed dressed, of 287½ lbs, at 8½ cts per lb \$23.72, the cost keeping, reckoning the cobmeal at 50 cts per bu., the rye meal \$1.00 per bu., the fine feed at \$1.50 per cwt. and small potatoes at 25 cts per bu., amounting to \$15.92; cost of hogs \$12.35; killing \$1.50 marketing 25 cts, total \$30.02 loss \$6.30.

THIRD EXPERIMENT.

My third and last trial was with a thrifty barrow-shoot, purchased the 17th of last Dec. It would then weigh, according to good judges, 150 lbs, worth at 7 cts per lb. \$10.50; (shoots were then retailing at 7 and 8 cts per lb.) I called him worth \$10.00. The cost of keeping till Jan. 1st, \$1.12; since then he has been kept separately and fed regular-

ly three times a day, with two qts. corn meal, one qt. fine feed, one half peck potatoes boiled and mixed with the above, which was fed with a little less than a qt. of shelled corn; total cost per day, 13 cts, 37 days \$4.81, previous cost \$11.12, total \$15.93. He will probably now weigh when dressed not far from 150 lbs, which at 8 cts per lb the present price of pork is \$12; deduct 75 cts for killing, the remainder from \$15.93, the cost, leaves \$4.68 as loss from this hog.

If it pays to keep hogs here in Massachusetts to kill in the spring, I think it must be (judging from my experience) on account of the value they are to the manure of the horses and cattle, to which they should have free access, as is the case with my hogs, and not with the expectation of getting the market prices of the grain fed to them.

FARM NOTES.

Soap for Churns and Milk Pails.

A correspondent of the *Germantown Telegraph* gives the following recipe for the best kind of soap to clean the inside of the churn or can:

"Take half a dozen pounds of rosin soap, half a dozen pounds of soda, add to this seven gallons of soft water, bring it to a boil, let it cool, and it is fit for use. Put a little of this soap in the churn with boiling water, and shake it up and down a few times. It is better cleaned than a half hour's work with other soap would make it."

Remedy for Bots.

Thomas Henderson of Huntington, Ind., states that he has tried the following remedy for bots upon two horses, and in both cases a cure was effected in a few minutes. Nevertheless we should like to think the matter over, before giving our horse such a dose. The recipe is: "Take a table spoonful of powdered alum, and the same quantity of copperas, likewise pulverized. Put them into a pint of vinegar, and give the horse the whole dose. This gives the horse relief in a few minutes."

Effects of High Culture.

Alderman Mechi, a noted English farmer, says, "My crops for several years have averaged per acre,—wheat 40 bushels, barley 56, oats 88; and mangold wurzels from 25 to 40 tons, the latter being a more certain crop in the dry climate of Essex, than Swedes."

A Hay Making Machine.

L. R. Stone of Owosso has invented a 'Hayraking, Pitching and Cocking machine,' which is so constructed as to be drawn by horses or oxen, and to gather from the ground by means of a contrivance similar to a common straw carrier, the hay, which is elevated sufficiently to deposit the same upon the top of an ordinary load upon a wagon. The wagon being attached to and following the machine, receives the hay as progress is made through the field. Mr. Stone has a machine of full size, which was satisfactorily tested last summer at Holly, and also at Owosso. We shall be pleased to hear more of this invention.

The Hereford.

The English Hereford Herd Book has reached its fourth volume; and an English paper calls attention to the fact that the "rent-paying Herefords," although lacking the aristocratic patronage accorded to the short-horns, is sustained by the tenant farmers of a large number of the midland counties; and also, that during 1859, a farmer gave 225 guineas (\$1,125) for the bull Salisbury, the second in his class at Warwick, and a first-prize winner at Hereford; and that a Hereford steer won the gold medal for the best ox or steer in the yard, both at Birmingham and Smithfield, and beat Mr. Stratton's crack gold medal shorthorn ox into the bargain.

Sale of a Jackson Colt.

We learn that the first sale of one of Old Jackson's colts was effected last week. The purchaser was the well known brewer W. C. Duncan, Esq., who bought from H. N. Strong, Esq., of this city, a four year old raised by him, which is very promising, and shows already a fine turn of speed in harness. The price given was \$500. Jackson was the first horse of the large trotting, Long Island stock, which was brought into this State. Some of the stock he left is now beginning to mature.

For Sale.

Mr. Heydenburk of Kalamazoo offers for sale his fine shorthorn bull Third Duke. He was brought into this State from the herd of Mr. Chapman in the spring of 1857. His sire was imported Halton, an animal of a high reputation. Mr. Heydenburk has used Third Duke for three years, and desires to change him.

Trotting Horse Sold.

E. Bloss of this place has recently sold his well known trotting horse "Black Diamond" for \$475 to parties who have taken him east.

MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, FEBRUARY 25, 1860.

Editorial Miscellany.

A correspondent thus writes from Green Oak, Livingston county: "It is hard work to convince those who are in the habit of raising nothing to sell," of which there are a great many in our neighborhood, of the propriety and economy of making an effort to sustain an agricultural journal peculiarly adapted to the interests of Michigan farmers. Some must have eastern papers, and others are too poor to pay for a paper; both these classes belong to the family of farmers who have 'nothing to sell,' for one of their best and most frequent crops. For my own part, I would not be without the MICHIGAN FARMER for any amount of money, as I am posted more correctly each week with a report of the markets for farm products than I can be in any other way; and oftentimes a single article more than pays me for a year's subscription; and in my humble opinion the editor deserves the thanks, respect, confidence and support of every wool grower in the State for the able and fearless manner in which he has defended their interests, every season, and enabled them to become fully posted in relation to one of the most essential staple products."

Those who are about to set out trees in orchards this spring should give their attention to the plan described as practiced by some of the members of the Plymouth Farmers' Club. This plan is one of the best and surest, and least troublesome of any that is known.

We hope our sheep growers will note the report of the sales and weight of South-down sheep which will be found in our reports of the market. These Southdowns were bred by Wm. Whitfield, and have only been fed for market since the first of November last. Their daily rations consisted of one peck of old corn for the 12, a bushel of ruta bagas, and what hay they would eat. All hay that was left in their racks was taken out each day, and tossed into the racks for the young colts, whose tastes and appetites were not quite so fastidious.

We call attention to the pedigree of "Gov. Wisner" in another column. Most of the stock in the neighborhood of the owner is bred from Guelph, hence the owner desires to sell him, as he cannot be used for breeding purposes advantageously. His breeding makes him useful any where, and as a fine young animal, he is worthy on his own merits. Breeders would do well to examine him.

The editor of the Saginaw Valley Republican, during the early part of the winter, purchased a barrel of "one hog mess pork," and after having consumed one-half of it, he complains of having had an opportunity of becoming acquainted with the "stern" realities of life, having found no less than seven tails in the first half of the barrel. It is evident that there is a tale to that barrel which cannot be fully told until the bitter end of it is chewed.

It will be noted that we give the views, in this paper, of a northern man on the subject of improvements in the northern counties. As he is well experienced in this subject, and writes with moderation and calmness, his remarks demand attention. The subject of drainage is one of vast importance, as it not only has a tendency to modify the climate, but to render that section of the State more certain of returns to the farmer for his labor.—This itself would largely enhance the reputation and character of that part of the State to which "Northern" refers.

We learn with much regret of the death of Oliver Hampton, Esq., of Albion.—Mr. Hampton was long known to us as a friend of the FARMER, and when we last saw him, looked as though he had many years of usefulness before him.

County Societies.

The Shiawassee County Agricultural Society held its meeting on Thursday of last week, the Hon. Isaac Gale being President, and P. S. Lyman Secretary. The following officers were elected:

President—William Frain, of Bennington. Secretary—B. W. Davis, of Owosso. Treasurer—C. S. Kimberly, of Corunna.

The Supervisors of the county were made vice-presidents. The next annual meeting of Executive Committee is to be held on the last week day of 1860, and the annual exhibition is to be held at such place in the county as will fit up grounds and fixtures for it.

The farmers of the Saginaw Valley, comprising citizens of Saginaw, Bay, Midland

and Tuscola counties, met at the Court-House in Saginaw City, on the 10th instant, and formed the Saginaw Valley Agricultural Society. A constitution was adopted, and the following officers elected:

President—Thomas C. Ripley. Vice Presidents—James Fraser, of Bay Co.; Dr. P. Richardson, of Tuscola Co.; John Larkins, of Midland Co.; Robert Ure, of Saginaw Co.

Secretary—Geo. F. Lewis. Treasurer—Geo. W. Bullock. Executive Committee—H. S. Penoyer, D. L. C. Eaton, H. L. Miller, M. C. T. Plessner, of Saginaw Co.; James Birney, of Bay Co.; N. T. Carr, of Midland Co.; W. R. Bartlett, of Tuscola Co.

The President and Secretary are ex-officio members of the Executive Committee.

State Politics.

The great event of the week in State politics has been the meeting of the State Democratic Convention on the 22d instant, to nominate delegates to Charleston, where they are to nominate candidates for President and Vice-President. The convention was most unquestionably characterized by a degree of harmony and unanimity of opinion which has seldom been equalled. It was very evident that there was but one voice in relation to who was the first choice of the party in this State; and that Mr. Douglass of Illinois was the man. The convention was called to order by S. D. Elwood, Esq., Detroit, and Charles H. Taylor of Kent county was made chairman pro tem. Mr. Taylor was afterwards made president of the convention by a vote of the members, of which 161 were present. This vote stood for Taylor, 89; Wm. M. Fenton, 50; W. L. Greenly, 22. The vice-presidents were Edward V. Cicott, of Wayne; F. M. Holloway, of Hillsdale; Zenas Tilton, of Calhoun; W. L. P. Little, of Saginaw.

The following are the names of the delegates and alternates to Charleston which were appointed. The nominations being left to committees composed of the delegates present from each of the congressional districts, which were confirmed by the convention in full session.

DELEGATES.

First District—George V. N. Lothrop, of Wayne, at large; Alpheus Felch, of Washtenaw; Fidas Livermore, of Jackson.

Second District—H. H. Riley, of St. Joseph, at large; John G. Parkhurst, of Branch; Phil Wilson, of Lenawee.

Third District—Charles E. Stuart, of Kalamazoo, at large; Franklin Muzzy, of Berrien; Alexander F. Bell, of Ionia.

Fourth District—George W. Peck, of Ingham, at large; Augustus C. Baldwin, of Oakland; William L. Bancroft, of St. Clair.

ALTERNATES.

First District—Francis W. Hughes, of Wayne; Benjamin Follett, of Washtenaw; J. B. Eaton, of Jackson.

Second District—George C. Munro, of Hillsdale; Stephen G. Clark, of Monroe; Asa Kingsbury, of Cass.

Third District—William Graves, of Berrien; D. Darwin Hughes, of Calhoun; Hiram C. Hodge, of Clinton.

Fourth District—C. C. Douglass, of Houghton; John Moore, of Saginaw; Andrew S. Robertson, of Macomb.

A series of resolutions were passed, which first distinctly commit the party in this State to the support of Senator Douglass as its first choice, and the support of the Cincinnati platform, and then arraign the Republican administration on a number of counts, which may be enumerated thus:

1. The refusal of the Legislature to permit an examination of the State Treasurer's account.
2. The neglect of the Auditor General to make the examinations required by law.
3. Extravagance and corruption in the management of the State finances and embezzlement of the St. Mary's canal funds.
4. The unnecessary increase of the taxes, and of the State debt.
5. The unnecessary creation of the loan for the St. Mary's canal, as an infringement of the constitution.

The resolutions also proclaim the registry law oppressive and unnecessary, but recommend that all democrats should register their names in pursuance of its provisions. The State committee recommend that a State convention for the nomination of State officers be held immediately after the adjournment of the Presidential convention.

The convention was addressed by C. E. Stuart, G. V. N. Lothrop, and G. W. Peck, and adjourned. The members being full of confidence, enthusiasm, and hope.

Another political event of the week has been the publication of a letter to the *Advertiser* by Governor Wisner, giving a detailed 'straightforward' and clear account of his whole official action in the matter of the canal loan. From this statement, which, from its very candor and fairness, must be allowed to be correct, the onus of the error is thrown

more strongly on the State Treasurer, than it was before. At the same time the Governor concludes his letter with the following remarks:

"I cannot, however, in justice to Mr. McKinney, close this article without adding that I believe him to be as honest a man as ever lived, that in the investigation made by Mr. Howard and myself in the city of New York in regard to the Hazleton loan, I saw nothing that led me for one moment to think that Mr. McKinney in that transaction was actuated by corrupt or selfish motives. I entirely exonerate him from all intentional wrong in regard to that loan. The reasons and motives that led him to take that step are for him to explain, and not for me. I shall not act either as his accuser or apologist."

After such an example, such an endorsement of character, and such a statement, we do not now see how the State Treasurer can remain longer silent, and it must become incumbent on him to publish a statement over his own signature of his action, and why the \$50,000 were lent to E. H. Hazleton & Co. It is true that all such letters, statements, or documents, always furnish the enemy with defenses to be attacked, but sometimes a "Mamelon" or a "Malakoff" is better than Sebastopol itself, as positions where a great deal of the energy of the besiegers may be expended in terrible onslaughts, that don't conquer Russia, however.

Wool and the Public Sales.

The wool market east was a little excited last week by the large auction sale advertised by the Messrs. Wilmerding. The attendance at the sale was good, and the quantity sold was large. The terms of the sale were cash on delivery, or for paper satisfactory to the sellers. Tare three pounds per bale. Bags for pulled wool 50 cts. Bags for fleece wool 40 cts. The sellers stated previous to sale that they would make an advance of 95 per cent. on all wools left in their hands for sale. This statement was an evidence of the confidence felt in the market, and also equivalent to stating that no lots were to go below the prices quoted, as prevalent. This may be considered a movement to fix a minimum rate below which no sale should be made. In spite of all these precautions it seems that though the attendance was large, and the bidding spirited, there are considerable doubts as to the amount of actual bona fide sales. The *N. Y. Economist*, remarking upon this sale, observes:

"We attended the sale in person, and from what we saw we had every reason to believe that the sale was a good one. The attendance was large and the bidding spirited, but as to how many lots were bought in, and who were regular purchasers, we were unable to determine satisfactorily. Many in the trade surmise that about three-eighths of the catalogue was bought in, without, however, any positive knowledge of the fact. The principal bidders were the brokers or their agents, and many of the manufacturers present complained of not getting a chance to purchase, being over-bid, as they thought, by interested parties. The prices, realized were satisfactory to sellers, but were about 35c per lb. below the prices current at private sale. Since the sale there is a much firmer feeling in the market, and lots sold at public sale could not now be duplicated at the same prices."

From these remarks, and from what has been said of previous public sales, very little reliance is to be placed in these "mock auctions," which seem to be got up more by speculators than by parties who are determined to sell, for the purpose of affecting the rates to be obtained afterwards at private sale. We should not be at all surprised, if there were several of these affairs got up previous to the time of the wool clip, for the purpose of showing western wool growers that wool is a drug, and prices cannot be maintained; and they will be cited by rural papers and rural editors, as the market, and our folks will take it all down, though they are perfectly aware the writers could not distinguish a Merino sheep from a well bred cashmere goat.

Congress for the Week.

The amount of business done in Congress as yet is but slight. The Senate has a committee still busily engaged in examining the printing contracts and the mode of performance. It appears from recent statements of Mr. Rives of the *Globe* office, that the printing is now done at his office for Mr. Bowman, for two thirds the amount received, and that Bowman receives the other third, which is salary enough for the appointment. The Harper's Ferry committee are still in session, and were discussing the propriety of summoning Governor Wise before them. Mr. Seward introduced a bill for the admission of Kansas, and moved that it be the special order for Wednesday of next week. It is expected that he will then deliver the great speech which has been expected from him since his return from Europe, and which will in some degree be taken as his position in relation to public affairs in connection with the Presidential contest. The power of the Senate to compel the attendance of witnesses was discussed, the case of

Thaddeus Hyatt coming up for consideration. The power of the Senate in this respect was sustained by a vote of 43 against 12. Mr. Chandler of this State made quite a severe speech on post office economy.

The House have not yet selected a printer, meanwhile all the printing goes to the Senate.—The several cases of contested seats are occupying the attention of the appropriate committee. The testimony in the several cases has been ordered to be printed, and will make a volume of large size. The committee on Territories have prepared a bill for the admission of Kansas, which will be reported very soon. We note it is predicated that such a bill will not pass at this session. There is a movement to restore the seats and desks in the House of Representatives; the benches now used, affording no convenience for reading, writing, taking notes, or in fact, anything but sitting, listening and voting. The bill to abolish franking privileges passed by the Senate does not seem to go down with the house very well, and will probably be avoided, or defeated. The two houses appropriated ten thousand dollars to defray the expenses of the inauguration of the statue of Washington on the anniversary of his birth day.

Literary Notes and News.

The Atlantic Monthly for March is before us. This is more of a clever number, than a literary one. It deals with philosophy and science: its poetry is not worth mentioning. "Implore Peace" is not pathetic; "To the Muse" is tedious, and we don't wonder she didn't stop with the writer, who must have "worrated" her considerably; "For Christie's Sake" is in bad taste, the very attempt to play upon the word "Christie," and render it uncertain whether a holy name, or that of a dear friend or relative, spoils to us a poem that contains some pathetic stanzas. The "French character" is dealt with philosophically; "The Electric Telegraph" historically; "Screw Propellers" scientifically; and the inquiry as to whether "the religious want of the age is met," is considered, we are not yet certain that it is answered. The Professor's Story has got a medium in it this time instead of a "yallah dog," and is becoming decidedly as interesting as any young lady could desire. The other articles we have not yet had time to do more than glance at, but the glance we took tempts us again to return to them.

Foreign Events.

The state of Austria, and the impotence, incapacity and obstinacy of the Emperor, seem to be the leading European political topic at present.—The London Times proclaims him as continuing all the weaknesses of Charles the Second, and all the stupid bigotry of James the Second. The richest and most powerful portion of the empire is Hungary, and yet it is this portion which Francis Joseph has undertaken to oppress, until the most loyal of the people see no other resource against the most abject submission, both in civil and religious matters, to despotic tyranny, than revolution. At present Austria stands before the world as beaten out of Italy, and with an army depressed and discouraged by bad management. Austria is also so completely submerged by debt that she cannot raise a dollar. Austria is so over-taxed, that the revenues sought to be raised can not be collected even by force, for nearly the whole wealth of the people is already used up.—Beaten in war, crushed with debt, and overriden by an overbearing priesthood and an aristocratic class that are no better than so many petty tyrants, this once haughty power is watched at the present time, with a belief that she must soon go to pieces, and that the times are ripe for such revolutionary movements in Hungary as will free that country from connection with the House of Hapsburg. The Times says:

"Here is this empire, lately so strong and so powerful, brought to the brink of ruin. Lombardy is rent away; Central Italy is gone; even the faithful Tyrol is disaffected; Venetia is ardent for revolt; Hungary is awaiting only the first occasion for armed resistance, and Croatia and Servia are ready to join with her. Yet in the midst of this stands Francis Joseph, weighed down with the Concordat, his Confessor and Director instigating his every act, persevering, with the indomitable stupidity of the Hapsburgs, in heaping up religious hatreds upon political discontents, and laboring blindly until some casual hand shall fire the pile."

The reports relative to the Spanish war in Morocco do not seem to indicate that the Spaniards are winning bloodless victories. It is now admitted that in the late contests the Spanish troops suffered more severely than was at first reported. The battle of the 23d of January lasted from 9 a. m. till 5 p. m. Great valor was displayed on both sides. After the battle the two armies returned to their previous position. Reliable accounts state that the Moorish regular army had not yet been brought out. The division is said to amount to over 60,000 disciplined troops, waiting for a great battle. The object of the Moors was said to be to draw the Spaniards into the interior.

"Italy is to be for the Italians," seems to be the settled policy of the two great powers, England and France. The duchies in Central Italy may annex themselves to Piedmont, and come under the sovereignty of Victor Emanuel whenever they elect so to do.

The French army is to leave Italy, and is to be withdrawn from Rome at the earliest period possible with the preservation of order. It is reported that a strong Mazzini movement is being organized, so that it is likely that the Pope will have but a short period to hold on to his temporalities after the departure of the French, without a struggle.

Political Notes of the Week.

The Kansas census returns are exciting some attention. It is thought that a sufficient population will be shown to enable the territory to become a State. There are many irregularities in the report.

Mr. Hunter is reported as the unanimous choice of the Virginia delegation to Charleston.

The prospect of an abolition of the franking privilege is not good in the House of Representa-

tives. We said some time ago, that it was very doubtful if a majority could be obtained for it pending a presidential election.

The Paraguay Commissioner has been received with all honors at Washington, and all difficulties between the two governments are to be settled.

The National Unionists are to have a national convention at Baltimore to nominate candidates. No time has been settled.

General Starke, the Commissioner from Mississippi to Virginia to propose a general southern convention addressed a meeting in Richmond, in which the telegraph reports him to have said "that the South would not go out of the Union, but if she were not protected by Federal authority, she would seize the Federal property within her limits and defend herself."

The New York Tribune canvassing the presidential candidates on the Republican side, selects out Seward and Chase as the prominent out and out republicans, and then points out Edward Bates as the first choice, if a candidate of a more inter-mediate position should be selected.

The delegates to the Charleston Convention which have been chosen so far, are divided up as follows: For Douglass, 109; for Gen. Lane, Oregon, 8; for Guthrie, Kentucky, 12; for Andrew Johnson, Tennessee, 12; for Jeff. Davis, Mississippi and Alabama, 16; for Mr. Cobb, Georgia, 10.

The Senate of the State of Alabama have passed a joint resolution to appropriate \$50,000 to indemnify Virginia for the expenses of the Harper's Ferry affair. It is not likely that Virginia would accept such a gift.

The Mayoralty Convention of Chicago is to be held on the first of March. John Wentworth is the candidate of the republicans, and Walter S. Gurnee of the democrats.

The Democratic State Convention of Rhode Island has been held, and the nominations are: For Governor, William Sprague; Lieutenant Governor, J. Russell Bullock; Secretary of State, John R. Bartlett; Attorney General, Walter S. Burgess; Treasurer, Samuel A. Parker.

An attempt was made at Binghamton, New York, to hold a State convention of the Americans. The reports say that but seventeen representatives were present.

The Connecticut delegation to Charleston is reported to be in favor of Douglas, with the exception of one member.

A meeting has been held in Maryland endorsing the course of W. H. Davis for his vote on Speaker, in organizing the House of Representatives. He has been censured by the Legislature of Maryland.

Scientific Intelligence.

MICHIGAN PATENTS.—Francis Van Doren of Adrian has obtained patent No. 27,172 for an improvement in hand seed planters. The claim is for the arrangement of a secondary hopper at the back of the seed box, that enables the operator to see whether seed is supplied from the seed box, as it is required; and also for a scraping device that keeps the end of the planter free from dirt.

Joseph Vowles, of New Hudson, has got patent No. 27,174, for an improvement in cultivators; his claim is for a pair of front hoes or plows, which are adjustable, and also for the peculiar construction of the frame.

A. D. Hoffman, of Belleville, Mich., has obtained patent No. 27,058 for an improved cross-cut sawing machine, which is designed principally for sawing firewood, and for hand use. It is a combination with a buck and a circular saw.

S. W. Ryckman, of Pontiac, has patent No. 27,077 for an improvement in corn shellers. The invention consists in the use of a rotary toothed cylinder, elastic bearing plates, inclined bed piece, endless feed, apron, and a fan so arranged that the work can be done expeditiously and thoroughly.

General News.

The Bushwick Mills at Shrewsburytown, in Shiawassee county, were totally destroyed by fire on the 12th instant.

The slave trade is progressing in Clinton county; over three hundred teams are reported to be engaged in hauling staves to the depot of the Detroit and Milwaukee Railway. The estimates are that six millions of pipe and West India staves will be got out.

The great land suit between Dewey & Hamilton of Flint and Mr. Campau of Detroit, has been decided in favor of the plaintiffs.

An effort is to be made during the coming year to raise funds to carry on the work on the National Monument to Washington. Postmasters are requested to cooperate by receiving voluntary subscriptions.

Some skillful designers have sailed for Japan from San Francisco, with the purpose of furnishing Japanese mechanics or artists with models after which to manufacture articles better designed for the American market, the design being to get the advantage of Japanese skill in execution for the manufacture of articles of furniture, &c., after plans designed by Americans.

A woolen manufactory has been started in San Francisco, which already employs eighty operatives.

A Miss Siddons, a lineal descendant of the great actress, is soon to appear on the London stage as Lady Macbeth. She is a pupil of Macready.

The heavy snow storm which prevailed at the west on Saturday last, extended to the eastern States, where for a time it stopped communication by rail.

A meeting to favor Italian independence was held in New York, which was largely attended, and in which many distinguished persons took part.

The loss of the steamship Hungarian, with all on board, is reported. The Hungarian was bound from Queenstown, Ireland, for Portland. She went ashore in a storm on Cape Ledge, near Halifax. Not a vestige of passengers or crew has been found.

The organization of the third regiment of volunteer militia in this State has been perfected. The regimental and field officers elected are, Colonel, D. A. Woodbury, of Adrian; Lieut. Colonel, N. E. Welch, of Ann Arbor; Major of the 1st Battalion, Wm. B. Merriman, of Jackson; Major of the 2d Battalion, Rob't J. Barry, of Ann Arbor.

An extensive fire broke out in Brantford, C. W. last week, and consumed a large amount of property.

The prorata measure to tax the New York railroads, makes but slow progress in the legislature. It was the occasion of a row last week between a Mr. Millikan and a Mr. Allen.

The drought of the past season has so affected the wool crop of Buenos Ayres, that there was a decrease in production of 25 per cent.

The village of Howell, in Livingston county in this State has suffered severely from fire during the week.

The shoe makers of Lynn and the surrounding towns in Massachusetts have commenced a great strike, for higher rates for new work. There seems to be much justice in this demand.

The Household.

"She looketh well to the ways of her household, and eateth not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

THE MOUNTAINS OF LIFE.

BY JAMES G. CLARK.

There's a land far away, 'mid the stars we are told,
Where they know not the sorrows of time;
Where the pure waters wander thro' valleys of gold,
And life is a treasure sublime.
'Tis the land of our God—'tis the home of the soul,
Where ages of splendor eternally roll;
Where the way-wearied traveler reaches his goal,
On the evergreen mountains of life.

Our gaze cannot soar to that beautiful land,
But our visions have told of its bliss;
And our souls by the gale from its gardens are fanned,
When we faint in the deserts of this.
And we sometimes have long'd for its holy repose,
When our spirits were torn with temptation and woes;
And we've drank from the tide of the river that flows
From the evergreen mountains of life.

O! the stars never tread the blue heavens at night,
But we think where the ransomed have trod;
And the day never smiles from his palace of light,
But we feel the bright smiles of our God.
We are traveling homeward thro' changes and gloom,
To a kingdom where glory shines unceasingly bloom;
And our guide is the glory that shines thro' the tomb,
From the evergreen mountains of life.

Political Rights of Women.

The readers of the household must be kept informed of the progress of the great question of Women's Rights. The point towards which all efforts now seem tending is, to secure to woman the right of voting. During the past six months conventions have been held in more than sixty counties of the State of New York, at which the following form of petition has been presented and largely signed:

To the Senate and Assembly of the State of New York:

The undersigned, citizens of ———, New York, respectfully ask that you will take measures to submit to the people an amendment of the Constitution, allowing women to vote and hold office.— And that you will enact laws securing to married women the full and entire control of all property originally belonging to them, and of their earnings during marriage; and making the rights of the wife over the children the same as a husband enjoys, and the rights of a widow, as to her children, and as to the property left by her husband, the same that a husband has in the property and over the children of his deceased wife.

The speakers at these conventions have been some of the best, most noted and most talented women of the times. Prominent among them are the following: Mrs. Frances D. Gage, formerly a resident of Ohio, now of Missouri, herself an exemplary wife and housekeeper, and the mother of six sons and two daughters; Mrs. H. M. T. Cutler, of Illinois, a lady of much experience and ability; Mrs. Antoinette Brown Blackwell and her sister-in-law Lucy Stone Blackwell, both accomplished scholars, eloquent speakers and true, loving wives and mothers; Mrs. J. Elizabeth Jones, of Ohio; Mrs. Ernestine L. Rose and Mrs. Lucy M. Coleman, of New York; and Miss Susan B. Anthony, of Rochester. The ladies have been most untiring in their zeal to proclaim civil and political equality for women. They report their success in obtaining signatures to the petition as almost unprecedented, considering the unpopularity of the cause arising from the ignorance and prejudice yet holding sway over the public mind.

In connection with the above subject, the Rev. Henry Ward Beecher recently delivered a very able discourse on "Woman's Influence in Politics," at a public meeting held in the Cooper Institute, New York city. We give such extracts from it as will show the philosophical, philanthropic and common sense view he takes of the matter. We quote largely from the lecture, only wishing we had room for the whole. All thoughtful readers will agree that it is well worthy of perusal. After a brief introductory view of the ground, he says:

"There is no restriction or limitation to the normal application of a man's powers. He may prove his faculties in any direction, and do whatever is right to be done in any department of life. A man may invade a woman's territory without hindrance, if he pleases, and sew or knit, wash or bake, cook, or nurse, for a living. He may range through the whole scale of occupations, restricted by nothing but the limitations of his own gifts.

"Now the question which we propose is two-fold. Is woman, like man, a creature in whom progressive civilization develops higher capacities and new aptitudes? And is there any reason why woman should not be permitted to follow her aptitudes and capacities, and to do whatever she can do well? Why should there be one law for man and another for woman, in the use of natural gifts?

"In the growth of civilization women have steadily risen, and have enlarged their sphere and multiplied their functions. May we not reasonably expect that hereafter the same development will proceed? Are there not for woman as for man new applications of power, new spheres of influence? Or is man the true fruit of the human race, and woman only a blossom, good to give him a start, then perishing to let him swell to full proportion?"

"Consider the lesson of history. How much has woman advanced in variety of func-

tions and in versatility of powers. She was once an article of merchandise, and is still among savages. She was secluded, and not accounted an equal member even of her own family. Her name in many nations has been a synonym for all that is weak, vain, and even contemptible. She has been, in some periods of the world, denied the rights of social life; and, by arguments just such as are now employed to bar her further usefulness, it has been declared that she ought not to be educated, that her province was subordinate, and her duty the service of the coarser man. The educated woman of our days would have been the wonder or the horror of early civilizations. She has attained and holds without remark a degree of liberty and various efficiency which would have violated the customs and shocked the prejudices of olden days. At each change at every upward step, have stood those pleaders, whose unregenerate posterity are yet in the same manner reasoning, affirming that already she was in her right place, and should stay where Providence placed her.— For the men who reason with faces prone to earth, think always that the state to which the world has grown in this day is all that God meant that it should ever grow. Men of great conceit have ever thought that Time was ripe in them. At length woman dawned into literature and changed the spirit of letters.— When she became a reader men no longer wrote as if for men. She enforced purity and higher decorum. When woman came as a reader and a writer, then again men saw that guiding star which led them where the young child of Christian purity lay. For, after all, it is the Pen that is the tongue of the world. And a woman's hand is becoming more influential than the orator's mouth.

"Woman has also advanced to a higher sphere as a teacher, and all are beginning to feel, although it does not yet appear what she is to do, that a new life is opened to her. Thus step by step against prejudices and arguments of her unfittedness, against rude pushes downward, and much advice as to her proper duties, (which in the main have been the drudgeries that men dislike,) women have advanced to a wider plane, to higher duties, to a liberty of following freely her own natural gifts, and to the reluctant recognition of her right to do whatever she could do well!

"Nor have the prophecies that, like bats, have flitted about her, been fulfilled. In the augmentation of her liberty and the enlargement of her sphere, she has forsaken no duty of home, and lost no grace of tenderness and love. She has become a better mother, a better wife, daughter, sister, friend, by just that enlargement which it was predicted would unsex her. Experience has shown that as woman is made to be worth more to society at large, and in public interests, she becomes richer at home, and is capable of building it better, and administering its duties and affections more skillfully and refinedly. Woman is not best in the family in those communities where she is most secluded. She is richest in all household excellencies in those societies where she has liberty of widest activity and motives to the exercise of her talents upon the largest scale. That vulgar maxim, worn smooth in fools' mouths, that a woman ought to stay at home and take care of her husband's clothes and her children's food, is a switch cut from the great tree of Arrogance under which despotic men have always sat, and from which the strong have always cut their bludgeons and cudgels wherewith to strike down or chastise the weak. A woman is better fitted for home who is also fitted for something else. It is largeness, it is generous culture, it is power made skillful by exercise, that make both men and women rich in domestic life. Whatever makes her a better thinker, a larger-minded actor, a deeper-thoughted observer, a more potent writer or teacher, makes her by just so much a better wife and mother. No one is a better friend for being ignorant. No one is a more tender companion for being weak and helpless. Our homes demand great hearts and strong heads. But these need the culture of open air and the free heavens. They are not of the hot-bed or the conservatory.

"I advocate a larger use, then, of woman's influence in public affairs; and that the whole subject may be brought to a definite starting point, I will state my position distinctly.

"Women ought to have the same right of suffrage that men have. The moment that is granted, the rest will follow. The vote is the point at which public opinion takes hold on public action. It is the point at which moral and political forces are condensed from thought-forms into the material form of laws, institutions, or public policies. The soul incarnates itself in public affairs by the vote.— And in our government the vote is the wheel and rudder, and controls the motion of the ship. Put that into woman's hand and she need petition no more for rights, but assume and exercise them."

"Since the world began, to refine society has been woman's function. She is God's vicegerent on earth for the end. You may be sure that she who has carried refinement to the household, to the church, to social life, to literature, to art, to every interest except government, will also carry it to legislation, and the whole of civil and public procedure, if it is to be carried there at all.

"For a long time woman has been supposed to be the refiner of the domestic circle. But why should not her power of refinement be suspected to be as applicable to every other relation in life, as to the household?— What is there under the roof of the house that gives this charm of woman such peculiar potency and power there? What is there that hinders it from producing the same effect in the church, in senate chambers, in legislative halls, in primary meetings, any-

where in the broad sphere of public affairs, that men now acknowledge in the family?— My faith is rooted, and grounded, and established, that the cheapest, the easiest, the most natural and proper method of introducing reformation into public affairs, is to give woman a co-ordinate influence there. Let these two great elements of the sexes go, influencing each other, straight through public affairs, just as now they influence each other in all the private relations of life. They will reform politics and civilize selfish and barbarous statesmanship.

Look, for a moment, at some of the results that would accrue from the granting of the liberty of suffrage to women.

What would be the effect of their votes in the selection of men for offices; town, state, and national? Do you not know, does not every politician know, does not every man that is at all conversant with public affairs know, that you are obliged to choose men for office with reference to those who are to vote for them, and that if men were selected whose election depended as much upon the votes of women as upon the votes of men, not one bad man would be put up where there are fifty selected now? The voting of women would be the sifting of men throughout the nation.

That is the very difficulty. It is because there are so many brutal hordes, it is because there are so many selfish cliques, it is because there are so many plotting men that set on foot sordid schemes, and resent all interruption, that there is so much opposition to the refining of public affairs by woman's vote.— For what man that is gross, what man that is corrupt, would not be blighted before woman's vote, as he would be blighted if lighting from the right hand of God had struck him? Bad men will receive their quietus in that day when woman becomes a voter.

That which would be true in respect to the selection of men for office, would be equally true in respect to all the public questions of the day—all questions that turn upon humanities, or that relate to morals, or that depend upon the higher moral sentiments.

If it were understood that in every ward and neighborhood the adult population, the whole of them, men and women, were to control the primary meetings, there would be no more trouble in these meetings than there is in our households. The restraint, the refining influence of woman, would make that orderly which is now like the tussling of dogs. And that which is true of primary meetings is still more significantly true of legislatures and national assemblies. Woman's influence, if introduced into public affairs would work in the same direction there that it has worked and is working in social life, in literature, and in religious assemblies.

But let us attend to some of the objections that are made to such an introduction of woman's influence into public affairs. It strikes many, before reflection, and none more than women themselves, that a participation in suffrage would subject them to rudeness, and to an exposure painful to delicacy. As if that very rudeness were not the result of woman's absence! As if it were not her very office to carry with her whatever is seemly and decorous!

In the first place, it should be understood that if women were to vote, there would be an end to indecent voting places. The poles would no longer be in vile precincts, and in pest-holes. If father and mother, husband and wife, brother and sister, man and woman, inspired by the sanctity of patriotism, were to go forth together to vote, do you suppose that our elections would be characterized by the vulgarity and violence which now defile them?

What is there in depositing a vote that would subject a woman to such peculiar exposure? A woman in dropping a letter into the post office is made more public and is full as much as indecent as in depositing her vote. A vote is the simplest, the neatest, the most unobtrusive thing imaginable. This white slip of paper drops as quietly and gently as a snowflake on the top of the Alps—but, like them, when, collected, they descend like avalanches, woe be to the evil which they strike! Let the man who is the most fastidious, who prides himself most on his refinement, find fault if he can with the vote of a woman—a thing that is so easy, so simple—but that would carry into human affairs a power almost like the right hand of the Almighty!

But why this publicity? Why not remain at home and exert an influence upon public affairs through husband, father, brother?

Because, while woman is excluded with contempt from political duties, her advice and influence at home must always be at the minimum. If once she began to accept public patriotic duties, she then would exert a ten-fold indirect influence at home. But, now, men take it for granted that women know nothing of public affairs, and that all their suggestions must of course be the result of an ignorant simplicity. A woman is not made a safe adviser by being kept in ignorance of all public affairs. And if she informs herself intelligently, then why should she not act just as much as man? She is by nature better than man, of a purer and higher moral tone. Why not help man when most he needs help? It is amusing to hear men, when pressed upon this point, enlarge upon the silent influence of women—upon the sweetening home affections, upon their bland and gentle restraints or excitations, and declaring a woman's home to be the only appropriate sphere of political influence.

But the moment she takes him at his word and endeavors to incline husband or brother to any political conduct, they turn with lordly authority upon her, saying, "My dear, your proper duties are in the nursery and kitchen. What do you understand of pub-

lic affairs? Do not concern yourself with things of which you know nothing."

Indeed, there is a large infusion of vulgar arrogance in even good men. They believe that woman was created solely or chiefly for the cradle, the bread-trough, and the needle. These complacent gentlemen suppose that God made man for thought, action, heroism, and woman as nurse, cook, and plaything.

But, I ask, why does not this argument in respect to woman's influence hold just as good in everything else as in public affairs? Why do you not say, "A woman ought not to be a school-teacher; if she wishes to teach the race, let her influence her father and brothers and husband, and act through the n?"

Why not say, "A woman ought not to be an artist, and daub her fingers with paints; let her influence her father and brothers and husband to paint?" or "A woman ought not to waste her strength in writing; let her influence her father and brothers and husband to write?" Why not say, in short, "Woman is a mere silent, interior, reserved force, and man is the universal engine to be set in operation by her?"

It is further objected: "If woman were to vote, then, of course, she would be eligible to public offices." Well, why not? In every respect in which a woman is known to have gifts of administration, why ought she not to exercise them? When a farmer dies, if the wife has executive power, she carries on the farm; when a merchant dies, if the wife has tact, she carries on the business; if an editor dies, if the wife is enterprising and able, she carries on the newspaper; if a schoolmaster dies, and the wife is competent, she carries on the school or academy; and nobody supposes but that this is perfectly right. All through society, in a sort of unasserting way, woman goes out of what is considered her sphere, and nobody thinks but that it is perfectly right. But I hold that it should be recognized as her right to engage in everything for which she is fitted, public affairs not excepted. No woman could be elected to the office of a Justice of the Peace unless there was a general conviction that she had peculiar gifts for its duties. This matter is surrounded with such safeguards of popular prejudice that no woman will be called to any office, unless it is very apparent that she has a fitness for it. Wherever there are gifts there should be liberty of exercise. Faculty always demands function. Every human being has a natural right to do whatever they can do well.

But it is objected, that by mingling in public affairs women would soon extinguish that delicacy that now gives them both grace and influence. Are we then to believe that womanly qualities are God's gift, or only the result of accident and education? If God made woman with a genius of refinement, tenderness, and moral purity, it is not probable that the exercise of large public duty will efface the marks of her original constitution, and that an active patriotism will tarnish her purity, and zeal for public justice will demoralize her nature.

We are not to forget that a woman's participation in suffrage will at once change the conditions upon which they are to enter.— When men ask, would it be wise that woman should enter the hurly-burly of the caucus and mingle with the fanaticism of party fury? I reply, that her presence would end these evils. Should a man, having an exquisite lamp burning perfumed oil, refuse to carry it into an unlighted room, lest the darkness should contaminate the flame, all would smile at his ignorance, as if light were not, in its nature, the death of darkness.

And when it is asked, "Would you go among brutal rowdies with your wife and daughter, and subject them to their insults?" I reply, if it were understood to be not an intrusion, nor a violation of constituted law, but a thing in accordance with both custom and law, I would take my wife and daughter and walk, I care not into what precinct or neighborhood; and there is not in the United States a place where they would not be safe. Or, if there were one drunken creature to mistreat them, there would be five-and-twenty stalwart men to crush the miscreant! For when it is once the custom for woman to mingle in public affairs with men, there will not be found a class of men in our land that will not respect her presence. Now and then I see a man that walks in the street smoking, with a woman on his arm—but only now and then. Once in a while I see a man that rides in an omnibus smoking, when there is a woman in it—but only once in a while. These are exceptions. Men instinctively reverence women. Nor is this the peculiarity of men of cultivation or wealth. Men who toil at the blacksmith's forge, and in the various other departments of manual labor—men whose hands are so hard that they would almost strike fire from steel, have under their brawny ribs a heart that loves and reveres the purity of woman. And in whatever sphere her duties might call her, if she was admitted to it by custom or law, men would meet her as now they meet her in the sanctuary and in these halls.

But it is said: "It would draw woman from her appropriate sphere. Home is the place of her life." And I would like to know if public affairs do not draw man from his appropriate sphere just as much? Can any man attend to his duties as a citizen, and not give time to them? And yet, does he injuriously abandon his store or his bank? It would not take any more of woman's time than it does of man's. But what is time given for, but to be used in duty? Nay,—it would save time to men and women if a higher spirit could be infused into public affairs. It is sordidness and low ambitions that exact so much time and strength of good men in the conduct of affairs. And if men were morally elevated they would strike for rectitude without all

those struggles and tergiversations which now impede their progress. Attention to public affairs, then, would not draw woman from her appropriate sphere one whit more than it draws man from his.

I do not ask that every woman shall be a candidate for office, or an officer. There is no danger that she would suddenly become wild and rampant, simply because a high moral duty devolved upon her. Intelligence and real moral power sober the silly passions, restrain vagrancy, give stability and discretion. And woman would be a more discreet stayer at home if she were taught wisely how to act in public duty away from home.

Again, it is said that women lose the charm and delicacy of their sex, by mingling in public affairs. No, no; you do not believe any such thing. You do not believe it, who say it; or you say it without thinking. A great many women, having received from God the gift of song, sing in public; and no man ever thought of raising this objection in regard to them. Who ever thought of raising it in regard to Jenny Lind? On the appearance here of Madame Sontag, a kind invitation was sent to the clergymen of New York and Brooklyn to attend a preliminary exhibition of her powers in the old Tripler Hall. You may be sure that we were all there; and she sang as she ought to have sung before the assembled clergy of these two cities! When she had finished Dr. Cox rose, with his inimitable eloquence, expressed our united thanks and admiration to her for what she had done; and blessed God that she had the gift and power exhibited. But not a word did he say about exposure, about her being unsexed, or about her being out of her sphere. It was taken for granted, that since God had given her such song-power, it was her duty not to silence it, but to use it for the good of the greatest number. But what peculiar right is there in Art to infranchise woman, and make that delicate and proper which custom forbids to religion or public affairs? Is it right to sing and wrong to speak in public? Is it delicate for Jenny Lind to confront five thousand faces standing alone upon a platform, and indelicate upon her husband's arm to go forth to the duty of suffrage?

As the different elements of society have developed in succession, they have been obliged to pass through the contention of the democratic and the aristocratic elements.— Woman herself is vibrating between these antagonistic forces. For ages woman has been advanced to honor, influence, office, and the highest public trusts, if she will accept them in aristocratic forms. Women as members of the ruling classes are emancipated from many clogs which yet hinder those lower down on the social scale. If it be as a representative of a noble family, or of a public order, woman is permitted to take her place in public affairs. She may be an abbess, a countess, a queen. To-day the proudest throne on the globe is honored by a woman. No person is shocked that she is at the head of empire. Every reason urged against a larger liberty for woman is illustriously confuted by the dignity, purity, and womanly propriety with which Victoria stands before her Empire, and before the world.

It is only woman without a title that must have no privileges. Woman in her own simple self, with nothing but what God gave her, plain, democratic woman, is not deemed worthy of honor and publicity. With a crown on her brow she may enter parliaments and govern empires. With only her own simple personal virtues she may not lift up her hand to cast a vote! If she represents a power, a state, an art, a class; if she only stand upon an aristocratic base, she is indulged. But woman, in her own nature, and representing her own self, is disowned and rebuffed!

Now, as a Christian democrat, I assert for her every right and every privilege that aristocracy accords her. That which is good enough for a queen is not too good for my wife. That which is noble in a duchess is honorable in my daughter.

Men will think about this reform, and talk about it. You will not accomplish it by first throwing yourselves into parties; but by talking first, and thinking before you talk, and remembering that we are advocating this change, not because woman needs it, but because we need it more.

I stand to-night the advocate of man's rights; and because we need it, woman should be eligible to all public trusts, and should have the same liberty of suffrage that man now has.

WOMEN AS WATCHMAKERS.—A movement has been started in England to encourage young women to learn the trade of watchmaking, with a view to qualify them to clean and repair watches—a branch of business in which there is constant employment in large towns and cities. The widow of a watchmaker in Boston, some time ago, maintained herself for years in working for the trade. She was very successful in repairing watches, having been instructed by her husband when his own powers began to fail. The American Watch Company at Waltham give constant employment to a large number of women.—*Boston Transcript*.

CAUTION TO SKATERS.—A lady at New Bedford bound her skates so tightly on her feet as to prevent the free circulation of the blood, and they were so frozen that one of them had to be cut off to arrest mortification.

The Boston Herald says that a young lady of that city, who indulged in an afternoon's exercise on skates, on Jamaica Pond, during the very cold snap, very imprudently had her skate straps so tightened as to prevent any circulation of the blood in the feet below the ankles. The consequence was that her feet were both frozen, one of them so badly as to render amputation necessary to prevent mortification ensuing.

Two sisters died in Portland last week, at a very advanced age. The elder was 96 years of age, and the younger 87. They were the last of their family, had always lived together, and died, one on Thursday and the other on Friday, within one day of each other.

THE MISER.

BY J. W. H.

He shuts the blinds and bolts the door,
Then brings his bags of glittering ore;
And as he counts each precious piece,
A smile lights up his rigid face.
Each day to swell his sordid store,
He cheats the rich and robs the poor;
Gold is his idol and his God,
Before whose shrine he deigns to nod:
In vain the widow's sad appeal
To penetrate his heart of steel;
In vain the orphan's cry for bread,
His heart's unmoved, his ears are lead;
Friendless, despised wherever known,
His wretched course he still keeps on,
Until at last, his failing breath,
Proclaims the near approach of death;
Then horror struck, his brain he racks,
In search of some redeeming acts.
But futile are his efforts all,
Not one good deed can he recall.
One nervous grasp to clutch his gold,
One stifled groan, and all is told,
His quivering hands relax their hold,
He dies unwept and unregretted.
Plymouth, Feb., 1890.

Great Men of the Bible.

BY SLOW JAMIE.

NUMBER SIX.

Lot—That Lot was a good man is evident from the fact that God sent him out of Sodom before he destroyed it. Peter tells us, too, that he was grieved from day to day with the ungodly deeds of the Sodomites. But that he was not so good as he ought to have been, I think, is as evident from the fact that he lived in Sodom at all. His uncle Abraham and he came together from Haran, and lived neighbors in the land of Canaan. But some quarrel sprung up between the herdsmen of the two, and Abraham knowing that every man thinks that he is in the right, and that a little fire often kindles a great matter, proposed that, rather than have any difficulty, they should separate. Had Lot told him that his society and advice were too valuable to him to be given up, the former would no doubt have willingly exerted himself to keep the herdsmen at peace, and still lived near his nephew. But Lot was disposed to go. Abraham then gave him his choice to take the eastward, or the westward. Lot might have returned the compliment, saying, You are the oldest, take your choice. But he was too eager to secure the well watered plains of Jordan, which lay to the east, to be so polite. So he took the plains of Sodom, although the people there were noted for their wickedness. Whatever may have been Lot's devotion towards God, his courtesy was inferior to that of Abraham.

There was once a colporteur (it matters not what his name was) who met a crazy man. He was not aware that the man was insane, and offered to show him some books. "I don't want to see them," was the abrupt answer. "They are religious books," urged the colporteur. "Well, well; if they are religious, keep them to yourself; I am not religious and ain't going to be very soon." More to pass the matter off pleasantly than anything else, the colporteur added, "I will tell you the kind of religion I like—for a man to do good to his neighbor." "Ha, ha," said the madman, "I like that kind of religion, too." "Well, what is the sort of religion you don't like?" "Oh," he replied, drawing out his words, as though he did not know what to say, "oh! making a great fuss." Now to do good to our neighbor is only one part of our religion, still it is a very important part, since the apostle James says, "Pure religion and undefiled, before God and the Father, is this, to visit the widows and fatherless in their affliction, and to keep himself unspotted from the world."

Lot, I over, may have been a better man than we suppose. At all events, when God determined to destroy Sodom and Gomorrah for their wickedness, He saved Lot. When the two angels came to warn him out of the devoted city, he received them with the same politeness as Abraham had done. They staid with him over night, and in the morning before sunrise they hurried up the family to flee from the doomed city. They took the whole family out of the city, and, pointing to the mountains eastward, said "Make your escape to the mountains; flee for your lives, and do not look behind you." But Lot pleaded with the angel who talked to him and begged that he might go to Bela, the smallest of the five devoted cities. His request was granted, and and God spared the town for his sake, and it was ever afterwards called Zoar, which signifies "a little one." The moment Lot and his two daughters entered the limits of Zoar, the other four cities, Sodom, Gomorrah, Admah, and Zeboim, were enveloped in sulphurous flames and smoke. His wife, who was probably lingering far behind, looked back, contrary to the divine command, and was immediately struck dead, stiffed in all probability by the vapor from the burning cities. The atmosphere was so impregnated with salts, that they soon encrusted her all over, and

preserved her corpse a long time, a frightful spectacle of presumption. Lot was so struck with this, and with the terrible conflagration, that he was afraid to dwell in Zoar, although it was spared; and going to the mountains east of the Dead Sea, he lived there in a cave with his two daughters.

What the crimes of the Sodomites were we are not told, except in a general way, that their wickedness was great before the Lord. The prophet Ezekiel also says, "Behold this was the iniquity of Sodom; pride, fullness of bread, and abundance of idleness was found in her and her daughters; neither did she strengthen the hands of the poor and needy." The Jewish writers commenting on this passage, relate that a man bending with age, once went through the streets of Sodom begging a morsel of bread. They gave him money liberally, every man scratching his name on the gold or silver coin he gave. The poor man was glad, for he soon found his pockets full of silver and gold. But his rejoicing was short, for no one would give him bread or water for his money. With pallid face, blood shot eyes and dried lips, he went up and down the streets asking a drop of water and a crumb of bread, but they threw him more money and laughed at his misery. He soon died of hunger; then they gathered around him and each took back the coin he had given him, knowing it by the name inscribed on it. Then they laughed again, and congratulated themselves that they had been very liberal and it was no loss to them. This story looks very much like fiction, but it is certain they deserved their terrible doom, for the Judge of all the earth will do right.

From the example of Lot we learn that we ought not to be too eager to get rich. He thought he had made a good choice when he got into the well watered plains of Jordan, although it did lead him into bad company. The country around Sodom was like the garden of the Lord for fertility,—yet in his old age he was comparatively poor, and lived in a cave on the mountain side. The bible tells us that "the hand of the diligent maketh rich." But it also tells us that "he who hasteth to be rich shall not be innocent." Wealth slowly acquired is generally more permanent than what is gathered in haste.

The Boston Girl.

The following graphic paragraph of the regular "Boston girl" is so good a bit in most of its features, that we will not withhold it from our readers, merely because it is somewhat exaggerated in some particulars. We find it in a New York paper. The man who writes it has "been there."

She believes in "good clothes," going to meeting, and Vinton's confectionery. She adores the Common, loves the moonbeams, and delights in skating on Jamaica Pond. She thinks Washington street the finest in the world, and the young chaps who promenade it from 4 p. m. to evening, as the pinks and paragons of mankind. She dances at Papaniti's, takes cream at Mrs. Meyers', and drinks coffee at Havens'. She condenses herself into a life-size admiration point before works of art, and goes into silks, satins, ecstasies, kid and Cologne when the opera arrives. She has a decided penchant for lectures, glories in the epigrams of Whipple, the oddities of Beecher, and the swelling periods of Chapin. She thinks the museum intensely fine, the State House great, the Boston theatre the grandest on the continent. She looks with horror on those of her sex guilty of the slightest peccadilloes, but doesn't see the harm in having an arm around her own waist at twilight, on the softest sofas, and is never offended at the most impressed of kisses—not she. She thinks "our minister" the greatest of preachers and the best of men. Boston "society" she knows is the choicest, most cultivated, genteel of any in the country.

The only place where nuptial rites can be performed is at Trinity Church. Summer street is the only place this side of Paris where "dry goods fit to be worn" can be procured. Warren's gloves are the only kind in the country that are not "frightful." Not to walk down Beacon street of a Sunday afternoon, at the close of church, is the height of cruel fate. She, taking her own estimate, is intellectual, or nothing. She is classical.—She is Roman. She can talk like an angel, and entertain like a book. She has fullgrown opinions on every subject, known and unknown, possible and impossible. She has a weakness for tea and toast. She believes in making daily not less than twenty calls. She likes blue stockings—not of woolen or worsted, but of the intellectual. In short, she is a singularity, an anomaly, *sui generis*, a—almost everything which the sex elsewhere is not.

How the Empress left off Hoops.

Napoleon the Third, it is well known, has always hated hoops and crinoline, and his lovely Eugenie has been the advocate of these famous appendages to the toilette of all ladies who are like her, fragile in form. Last summer—so says a Paris letter—they made a merry bet, he declaring that she would never leave off "the shadows which never grow less," she asserting, that if she did, he would be the first to urge their restoration! A diamond ring was thus wagered, and the *mesieurs et dames* of the Imperial court made their bets also.

One morning as the Emperor was pacing the terrace at Compeigne, waiting for the Empress to take a drive with him, he suddenly started back with affright. Before him stood *la belle Eugenie*, wearing a large Leghorn flat, and an embroidered flounced muslin dress, but "nary hoop," as my friend from Pike county would say.

The Emperor was scared! No ghost could have produced an effect more appalling than this thin, slight form, whose drapery, clinging yet loose enough to be stirred by the breeze, seemed fluttering round it, unattached by any earthly means. After the first astonishment was over, the Emperor frankly confessed, with the morriest laugh he had enjoyed for many a long day, that the Empress had fairly won her wager, for that he never could endure to behold this sudden renunciation of the monstrosity, however great, which had succeeded evidently in so corrupting the taste, that—hideous, awkward, vulgar as it was—it possessed the quality of being indispensable. Her Majesty joined in the laugh with the same degree of heartiness, and declared, with a malicious smile, that it was worth while to make experiments, to prove that the caprices of men were quite as various and as groundless as those of the fair sex; and announced that, had she not found a substitute, she never would have abandoned the hoops.

WHAT IS WORN INSTEAD!

In another half hour—so the letter says—the Empress reappeared, in the same straw flat and muslin dress, but looking herself again. *She had won her bet*, yet kept her word. Not a particle of hoop or crinoline had entered into the composition of the under garments, nor has her Majesty ever resumed either, but numerous petticoats of unequal length, *alternating short and long*, made of the lightest tulle for muslin dresses, and of light tulle for silk and velvet, have been ever since adopted.—Some people say that as many as eighteen of these are worn. This fact we cannot affirm; we can only say that the effect is perfect, and that, wherever her Majesty appears, she is distinguished for the easy elegance and distinguished grace of her carriage.

Household Recipes.

For Washing White Flannels.

Make a strong soap suds, putting to every pint of soap, two table-spoons of turpentine—then put in your goods and let them soak for twenty or twenty-five minutes, occasionally loosening and pulling them up. Then wring them out and put them in warm water, letting stand ten or fifteen minutes, sufficiently to soak out the soap water. Then add some blueing to another warm water and rinse them thoroughly, and your flannels will be clear and soft. If the flannels are very dirty, a stronger suds must be made, allowing the same quantity of turpentine to every pint of soap.

MARY M. WILLSON.

To Clean Painted Woodwork in Houses.

To one pint of soap add two table-spoons of turpentine; then take two quarts of warm water, add one pint of skim milk, putting enough of the soap in to make a weak suds, and wash your wood work. It will leave a beautiful gloss wherever it is used, removing all stains, &c. Soap should never be rubbed on paint or varnish.

M. M. W.

Noble Centre, Mich., Feb., 1890.

Fruit Cake without Eggs.

One cup of molasses, one cup of brown sugar, one cup of butter,—heat together sufficiently to melt the butter—two teaspoonsful of cloves, two of cinnamon, one of nutmeg, one coffee-cup of raisins, (with or without currants,) citron; then add one teaspoonful of soda dissolved in hot water; one cup of sour milk or buttermilk, and one quart of flour; bake an hour.

Ruby Cake.

Beat together one pound of sugar and one pound of butter, to a cream; add eight eggs beaten light; add a grated nutmeg, and then stir in the coloring matter, made in the following way: Grate a beet root to fine shreds, with a very little water. Let it stand one day, and then squeeze through a linen rag. One wineglassful of this essence should be added to the other ingredients, and then sift in one pound of flour. Mix all well together, and bake in a tin for an hour.

Portable Balls for taking Grease Spots Out of Clothes.

Dry fuller's earth, so as to crumble it into powder, and moisten it with lemon juice; add a small quantity of pure pulverized pearl ash, and work the whole up into a thick paste. Roll it into small balls, let them completely dry in the heat of the sun, and they will then be fit for use. The manner of using them is by moistening with water the

spots on the cloth, rubbing the ball over, and leaving it to dry in the sun; on washing the spots with common water, and very often with brushing alone, the spots instantly disappear.

Indian Meal Puffs.

Into one quart of boiling milk, stir eight table-spoonsful of meal, and four spoonfuls of sugar.—Boil five minutes, stirring constantly. When cool, add six well beaten eggs. Bake in buttered cups half an hour. Try them with a little butter and maple molasses, and see if they are not good.

For Our Young Friends.

Geographical Enigma.

I am composed of 20 letters.
My 12, 13, 16, 13, 2, is a river in Mexico.
My 18, 16, 20, 18, 12, 10, 5, 7, is a cape on the Atlantic coast of the United States.
My 1, 2, 11, 2, 10, 15, 2, is an island of the West Indies.
My 12, 15, 17, 9, 19, 7, is a river in Georgia.
My 8, 2, 13, 10, 18, 3, is a town in Alabama.
My 1, 4, 6, 8, 14, 20, 5, 12, 9, is a town in Tennessee.
My 18, 7, 17, 18, 18, 10, 2, is a town in Illinois.
My 20, 3, 10, 5, 10, 9, is a river in Michigan.
My whole was an American author.
H. W. J., Greenfield.

Geographical Enigma.

I am composed of eleven letters.
My 8, 10, 1, 6, 7, is a lake in the United States.
My 11, 8, 2, 7, 9, is a river in France.
My 7, 9, 10, 3, 9, is a river in North Carolina.
My 5, 2, 7 is a cape in Africa.
My 1, 6, 3, 4, is a mountain in Switzerland.
My 10, 1, 5, 4, 7, 7, 4, is a town in Virginia.
My 8, 2, 11, 7, is an island in Mississippi Sound.
My whole is a painter famous for her truthful portraits of animals.
S. J., Greenfield.

Answer to Riddle of last week—COTTON GIN PORT.

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SPRING IS COMING.

THE undersigned respectfully informs the public that, as an experienced gardener, he will take jobs by the day or month, trim trees, grape vines, &c., &c., furnish trees, plants, shrubs, vines, on short notice and moderate charges. References will be given if required. Apply to JOSEPH KUHN, Odd Fellow Hall, or to JAMES W. KRUPP, Cor. Catharine and Rivard sts. Speaks German, French and English. 7-1*

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A. FAHNESTOCK & SONS offer at their Toledo Nurseries, Catawba, Isabella and Clinton Grape Vines at the lowest rates. Also, Concord, Diana, Rebecca, Northern Muscadine and Delaware, by the dozen or single vine, very low. Send orders early. Toledo, Ohio. A. FAHNESTOCK & SONS. 8-9w Send stamp and get a catalogue.

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5,000 Norway Firs, 18 inches to 3 feet, at \$12 1/2 per 100. " " " 9 to 12 inches, \$20 per 100. 50,000 Wilson's Albany and Hooker strawberries, at \$1.50 per 100; \$10 per 1000. 10,000 Linnaea Rhubarb, \$10 per 100, \$80 per 1000. Toledo, Ohio. 8-9w A. FAHNESTOCK & SONS.

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OFFER FOR SALE at reduced prices and a liberal credit for approved paper, from my herd of thorough bred Devons, One BULL 4 years old, Two Cows and Two BULL CALVES, first class animals, descended from Patterson's, Beck's and Wainwright's importations. W. M. SCHUYLER, Marshall Mich. 5-2w

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It has also received the Indiana State Agricultural Society's Field Trial, Trumbull county, Ohio, First Premium, 1888. Clark county, Ohio, First Premium, 1888. Albany county, New York, First Premium, 1888. Queen's county, L. I., First Premium, 1888. Dutchess county, New York, First Premium, 1888. Portage county, Ohio, First Premium, 1888. Summit county, Ohio, First Premium, 1888.

And at MANY OTHER FIELD TRIALS! besides the decision of the Farmers in its favor, over all competitors, in many field trials, among the farmers themselves, with the single object of satisfying themselves which was the best machine.

THE BUCKEYE also received the New York State Agricultural Society's First Premium, 1887. Connecticut State Fair, First Premium, 1888. do do do First Premium, 1888. Maryland State Fair, First Premium, 1888. Eastern Virginia State Fair, First Premium, 1888. Western Virginia State Fair, First Premium, 1888. And the Michigan State Agricultural Society's Fair in 1889, and numerous other

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ATTENTION SEEDGROWERS, GARDENERS AGRICULTURISTS, AND DEALERS IN Agricultural Implements!!

THE above machine is the invention of T. B. Rogers, of Wethersfield, Conn. (a place celebrated as a great Seedgrowing town), and where large numbers of root crops are cultivated. It is there extensively used.

It was Awarded the Highest Premiums at the Connecticut State and Hartford County Fairs.

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Just the implement which farmers and market gardeners have long needed. Every kind and size of seed is sown. Even parsnip seeds, which have baffled every machine hitherto used, are scattered by Mr. Rogers' implement, with just as much precision and evenness as any other seed.—Homestead Agricultural paper.

The labor in working is just about equal to trundling an empty wheelbarrow.—Christian Secretary.

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It sows fast as a man can walk.—Homestead Agricultural paper.

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THE 26th VOLUME

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R. F. JOHNSTONE, EDITOR.

Publication Office, 130 Jefferson Avenue.
DETROIT, MICHIGAN.

THE MARKETS.

There seems to be a disposition among the bankers and brokers to get rid of western notes, but this must not be considered the real state of the case. There is no kind of money which affords the latter such returns, or such profits, and it is made the basis of all their operations. It has been largely introduced into Michigan, solely because it is more profitable for dealers in money than any other kind. Every man well understands that nearly all our produce is sold to eastern buyers, and hence we should have eastern funds in return for the produce sold. We do not sell to western men, neither as a general rule do our business men make deposits in Wisconsin or Illinois banks, why then is it that the State is flooded with Illinois and Wisconsin currency, and that all eastern funds are withdrawn? Is it not solely because money dealers get well paid for returning all eastern currency, and making all payments in "western." A flurry has been attempted to be got up in western bank notes, but fortunately it has not been able to affect any great amount of harm. We see that the Detroit banks are throwing out the bills of the Globe Bank of Milwaukee, the Germania Bank and the Wisconsin Bank of Mineral Point, Wisconsin.

Breadstuffs.

The market for flour and grain continues steady and without change worthy of note. The eastern market shows a slight improvement in the demand, but not of such a nature as to make any improvement in prices and the reports of the week from Great Britain, indicates nothing from that source likely to affect us here.

Flour—Is steady at \$5.00, and 5.25 for extra.

Wheat—Very quiet, with light receipts at \$1.10 @ 1.16 for red. White at 1.20.

Corn—In the ear sells at 45 cts; from store shelled corn sells at 53 cts.

Oats—Are plenty and sell at 35 cts; with a tendency downward.

Barley—Prime samples would bring 1.37 1/2, but they are scarce. Common lots bring 1.25 @ 1.30 per 100 lbs.

Rye—A few lots sold at 65 cts.

Corn Meal—Sells at \$1.12, being a little better than it was last week.

Fed—Mill feed is not quite so high in price, but still out of proportion to other kinds. Bran can now be had for \$1.15 or \$1.16 per ton. Coarse middlings at \$1.19.

Beans—Steady at 70 @ 80 cts per bushel.

Seeds—Clover is now being purchased at \$4.00 @ 4.25. Timothy continues rather scarce at \$3.

Potatoes—Selling at 30 @ 35 cts per bushel.

Apples—The best winter apples now bring \$2.50 @ 2.75 per bushel. Very extra lots might bring a little more, but it is doubtful. The season is hardly opened yet for a full demand.

Butter—By wholesale is not worth over 14 cts. Good roll brings 15 cts. Firkin sells at 15 cts.

Eggs—Selling at the rate of 15 cts per dozen for fresh. By the barrel 12 cts is a good price.

Hay—There is no change in hay, though there is a good supply kept up.

Live Stock, &c.

The live stock market in this city is quite dull. We note the sale of six head by Daly the drover to Smith at 3 1/2 cts on foot. These cattle were very good in quality, and when dressed made a fine show of beef. The chief event in the way of a sale this week was the purchase of twelve of Whitfield's Southdowns. These made a beautiful display of mutton, and turned out to be very well fed and fattened. They were only two year olds, and therefore were not equal to what they would have been if another year had been allowed them. The weight of mutton when dressed was 125 lbs to the carcass. Each of them yielded besides, 22 lbs of tallow, worth 80 cts, and their pelts sold at \$2.25 a piece.—These sheep turned out one of the best lots that ever has been seen in this market of the same age. Common sheep in carcass sell at 4 1/2 @ 50 cts. There is nothing doing of importance; the supply is good. Extra heavy bring from \$1.37 1/2 to \$1.62 1/2. Green hides are steady at 4 1/2 @ 50 cts. Hogs remain as quoted last week; very few are now seen in market, and what comes in are readily taken at \$6.25 @ 6.50 for heavy.

Pork continues very firm at \$17 @ 17.50 per bbl. Hams selling at 11c.

The New York market is this week reported as somewhat firmer.

In the Albany market, we note that the receipts of cattle are unusually heavy, though the prices continue firm, with a slight indication of an advance. The quotations for the two weeks are:

	This week.	Last week.
Premium.....	5 1/2 @ 5 3/4 cts.	5 1/2 @ 5 3/4 cts.
Extra.....	4 1/2 @ 4 3/4 cts.	4 1/2 @ 4 3/4 cts.
First quality.....	4 1/4 @ 4 1/2 cts.	4 1/4 @ 4 1/2 cts.
Second quality.....	4 1/4 @ 4 1/2 cts.	4 1/4 @ 4 1/2 cts.
Third quality.....	4 1/4 @ 4 1/2 cts.	4 1/4 @ 4 1/2 cts.
Inferior.....	3 1/2 @ 4 cts.	3 1/2 @ 4 cts.

Several lots of Michigan cattle are noted amongst the sales: one lot of 18 head sold by Terry & Pendell, weighing 1473 pounds, at 4 1/2 cts live weight; one lot of seven sold by A. H. Wood, very prime, at 4 1/2 cts. A. Smith sold a lot of 17 head, weighing 1410 pounds, at 4 1/2 cts. N. Comstock, a lot of 17, at 4 1/2 cts per head, weighing 1450 each.

The N. Y. Tribune notes the sale of a lot of sheep, twenty-three in number, from Ontario county, in the Albany market, that weighed 4,604 pounds, and which were sold to Curtis & Wales for the Brighton market at \$4.00 for the lot or an average of \$1.70 each. The sheep weighed on an average just 200 pounds each, and brought about 8 1/2 cents live weight. This is not much better than Detroit prices. Whitfield's sheep, which we have noted above, being valued at 8 cents live weight by their purchaser.

Wool.

There has been a considerable depression in the trade in wool during the week. We note purchases of several lots by S. Folsom, and one of them amounts to 2,500 lbs. at 41 cts for the extra parcels. This, however, is rather better than some of the sales made in New York at the great wool sale, when extra Ohio pulled brought but 40 @ 47 in many cases. That a decline is anticipated, looked for, and worked for, and will continue to be duly impressed upon us, from this time forth, is certain, especially where we find such paragraphs as the following in the commercial reports of the eastern press, commenting upon the business:

"Woolens have not improved in activity, and in absence of the usual demand, holders of spring casimeres are more anxious sellers, and the market has not been sustained. The high price of wool hitherto, and the increased price for labor, offer little hope of remunerative returns to the manufacturer, and we see no immediate relief until a more restricted production can be adopted, or a still further decline in wool should ensue. The wool sale to-day was well attended, and a decline was established. Wools that sold at 52 1/2 cts previous to the Boston sale, were sold at 52 1/2 cts. Yet this is not sufficient to insure a good business to the fabricator."

The prices in New York are quoted at—

Am. Saxony fleece.....	55 @ 60
Am. full blood Merino.....	45 @ 52
Am. 3/4 and 1/2 Merino.....	45 @ 48
Am. native and 1/2 Merino.....	35 @ 40
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Superfine do.....	35 @ 40
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Canada pulled.....	25 @ 30

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